

9-11 SCIENCE REPORT

By Dr. Stefan G. E. Grossmann

<http://www.gallerize.com>

Updates 2015

on pp. 170 ff.

APPENDIX A: FORGOTTEN BOMBS - How Internal Explosions Blew Up the World Trade Center on September 11, 2001 Per: September 14, 2004

Executive Summary:

I refer to my “9-11 SCIENCE REPORT” and my multimedia e-book show “T MINUS 9-11, An Insiders’ Attack on America” for the overall understanding of 9-11. The Appendices A through C detail key issues: the bombs/internal explosions, the low fire temperatures insufficient to weaken, much less melt steel, and the collective insanity of the U.S. governing regime.

Herein: Loads of forensic data ignored by the government and mainstream media. Such as: A 600,000 pound (270 metric ton) steel beam flew through the air for 390 feet and struck deep inside a neighboring building. The energy it takes is more than to launch *two* Boeing 767-200 planes. Before 9:00 a.m., the lobby of WTC7 exploded which was the reason for evacuating this building. Many witnesses heard, saw and felt huge explosions in the towers and underground. Heavy debris rained over hundreds of acres damaging buildings like from an erupting „mini-volcano“. This forgotten evidence points to gigantic internal explosions inside the World Trade Center. This evidence gives a clear interpretation to the scientifically clear seismic recordings of Richter scale 2.2 underground explosions instants before each of the twin towers fell. This has never been compiled before in this form. With a witness list including 141 entries, several of these are links to other older witness lists. Incriminating with relation to a governmental mass murder.

The Fire Temperature Discussion – Or, How the Towers *Didn't* Fall

1. How does the government explain the twin towers collapsed?
2. At what temperature can fire weaken a steel structure?
3. Name the evidence that proves that the fires in the twin towers were nowhere close to being so hot as to be able to weaken or even melt steel!
4. Name the counter-evidence that proves that the fires in the twin towers were so hot as to be able to weaken steel!
5. What does America's oldest fire-fighting magazine have to say about the government's fire investigation?

Correct Answers for Part Three:

1. In the FEMA World Trade Center Building Performance Report (online as pdf), the government admits that the physical impacts of the (pseudo)planes were entirely insufficient to knock the towers down. Then the government alleges, the so-called kerosene from the so-called airplanes' tanks caught fire and lit the towers up. This allegedly caused "raging fire infernos" in both twin towers over an extended period of time. As a result of this, the structural steel of the towers was not melted but weakened. Finally, the horizontal trusses connecting the core steel with the perimeter steel columns buckled, and at such time each tower imploded top-down to dust and collapsed.

For WTC7, a 48-storey tower, the FEMA in effect says they do not know what caused it to collapse. For the loud and volcano-like explosion of WTC6 (the U.S. customs building), the FEMA refused to collect or publish any data.

Note by the disgusted author: The above "truss theory" for the collapse of the twin towers is an insult to any intelligent person who takes the time to go into the details. See the following.

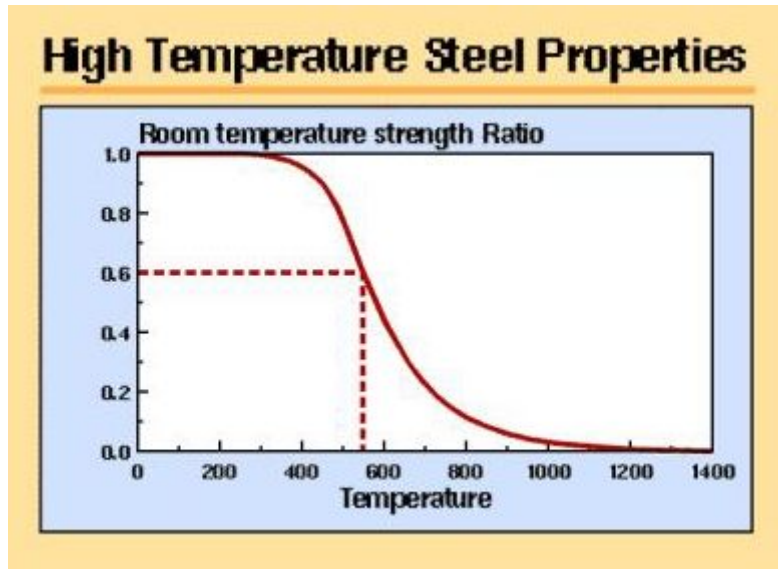
More recently, the government has actually contradicted itself by publishing the finding of its investigators that the steel of the twin towers was no cause in the collapse of the towers (the - still ongoing - NIST steel investigation).

<http://www.underreported.com/modules.php?op=modload&name=News&file=article&sid=1118&mode=thread&order=0&thold=0>

The government has made further forensic investigations impossible by disappearing over 1.5 million tons of rubble, in effect destroying the crime scene which is in itself a crime.

THUS, IT IS NOT CLEAR TODAY WHAT EXPLANATION THE GOVERNMENT OFFERS FOR THE COLLAPSE OF THE TWIN TOWERS. THE GOVERNMENT IS SAYING THEY DO NOT HAVE AN EXPLANATION FOR THE COLLAPSE OF BUILDINGS 7, 6 AND THE TWIN TOWERS.

2. Here is an overview curve for the temperature than can weaken steel (in degrees Celsius):



Steel can be weakened (heat-softened) by longer exposure to temperatures over around 500 degrees Celsius. Steel melts at temperatures over about 1,350 degrees Celsius.

Celsius versus Fahrenheit is:

Celsius	Fahrenheit
250	482
500	932
1350	2462

3. I have written about the following, but the list is probably not complete:

- NY firemen (under Chief Palmer) were above the 70th floor in south tower shortly before the tower collapsed. The firemen found no raging fire inferno. They mentioned only two fire pockets. The firemen ordered a pair of engine companies and they thought they could put the fires out. There was no panic nor any sign that the tower would collapse. This information is on a fire department tape. The government withheld this tape from the public for over a year. It was then finally published, and the New York Times reported the story.

- German company Convar, a contractor for the FBI, was able to restore over 400 computer hard drives from the rubble of the World Trade Center. All hard drives were restored. They recorded financial transactions and other data until seconds before the collapse of the respective building. Computer hard drives are irretrievable gone at temperatures above about 250 degrees Celsius (about 480 degrees Fahrenheit). If there had indeed been "hot raging fire infernos" in the twin towers, the computer hard drives would have been gone. The computer hard drives functioned as thermometers telling of the relatively low temperatures throughout the towers before the collapse.

- The kerosene in the pseudo-planes did not exist. Even if there had been real planes, their kerosene amounts were far too small, and burned in the first seven minutes, to cause the steel to weaken for a collapse.

- The tragic “jumpers” came close to the outer steel pillars and actually touched them, resting by them. Steel is a good heat conductor. If any large part of the towers’ steel had been heated very hot such as to weaken steel, then the entire steel structure would have radiated such heat like a hot toaster. No jumper could have jumped through the pillars because at such temperatures as weaken steel, the human body is killed by an instant heat shock.
- The smoke from the fires was from low-temperature fires at the threshold to a mere smolder. The smoke contained 75 organic toxins such as form at low temperatures.
- No raging fire infernos could be seen from the outside. In all other cases of raging fire infernos, this can be seen through its flames from the outside.
- An additional argument might be the millions of papers that rained from the towers as they collapsed. If the room temperature had been 500 degrees Celsius, the papers would have caught fire inside the buildings and would have burned. Not even the millions of papers that rained from the collapse sites burned, however.
- Indirectly, the government investigators at the NIST have admitted that there were no such not fires because they admitted tentatively that weak steel did not play a role in the collapse of the towers (above, answer one towards the end).

4. None. The government has provided no counter-evidence to prove their ludicrous theory.

5. William Manning, the editor of “Fire Engineering” magazine, speaking for many of his fire-fighting colleagues, has labeled the so-called fire investigations of the government for 9-11 a “**half-baked farce.**” See article by Christopher Bollyn, http://www.americanfreepress.net/Conspiracy/Fire_Engineers_Call_WTC_Probe/fire_engineers_call_wtc_probe.html

Many additional details are in my book “T MINUS 9-11” (pages 274-277 and throughout) at my site www.gallerize.com. -- More specifics on the fire now in Appendix B.

Why the Towers **R e a l l y** Fell:

1. Before 9-11-1, how many steel highrise buildings fell due to fire?
2. Is there a method of letting steel highrise buildings collapse vertically into themselves?
3. What are typical signs of a controlled demolition?
4. Does the collapse of the twin towers show signs of a controlled demolition?
5. Which controlled demolition company helped clear the rubble of both the Alfred P. Murrah federal building in Oklahoma city (mini-nuked on April 19, 1995)

and of the World Trade Center in Manhattan (bombed to smithereens on September 11, 2001)?

6. Who was responsible for the security of the twin towers of the World Trade Center on September 11 2001?

7. What is the story of WTC7 (building 7) on 9-11-1?

8. What is the story of WTC6 (building 6) on 9-11-1?

9. Did seismic recorders record explosions at the World Trade Center on 9-11-1?

10. Did eyewitnesses see and hear explosions at the World Trade Center on 9-11-1?

11. Are there photos and videos of explosions at the World Trade Center on 9-11-1?

12. What do the huge dust clouds from the collapse of the twin towers mean?

13. View these two video stills:



The video shows a sudden very bright flare near the end of the collapse (this is on video for each of the two twin towers).

What is the explanation for the bright flare near the end of the collapse?

14. Were there pools of hot molten steel in the basement of the twin towers after the collapse?

Correct Answers:

1. None.

2. Yes. The method is called a “controlled demolition”. It is done by special controlled demolition companies. It requires the deployment of detonators throughout the building. They need to be wired, and their explosions coordinated closely, today done through a computer with a detonation plan. One sometimes sees this demonstrated on TV as for an

old apartment highrise or an old hotel. Check it out on the internet and look at the typical huge dust clouds rising, and other tell-tale signs.

3. Here is a checklist of indicators for controlled demolitions:

- Loud bangs and booms as from explosions
- Expanding explosion gases
- Building collapses suddenly
- Absence of any other cause
- Explosion vibrations, sounds, lights and squibs
- Lateral (sideways) forces
- Fast (almost free-fall) speed of the collapse
- Top-down collapse (not chaotic collapse from the middle or bottom)
- Neat straight vertical collapse of the building “into itself”
- The cement gets pulverized to microscopic nano-dust particles
- Large dust clouds from the detonations

4. Yes. It shows all of the above signs (some of the evidence see below).

5. Controlled Demolition Inc.

<http://www.controlled-demolition.com/>

<http://www.serendipity.li/wot/debris.htm>

[http://www.controlled-](http://www.controlled-demolition.com/default.asp?reqMode=1&reqLocId=7&reqItemId=20030317124730)

[demolition.com/default.asp?reqMode=1&reqLocId=7&reqItemId=20030317124730](http://www.controlled-demolition.com/default.asp?reqMode=1&reqLocId=7&reqItemId=20030317124730)

6. The Bush family. Marvin P. Bush, a brother of George W. Bush, was the Director of the Board and at the World Trade Center on the morning of 9-11-1. Details see my report, section II, at

<http://www.cloakanddagger.ca/media/Grossmann/Four%20Horsemen/066%20Four%20Riders%20of%209-11%20Apocalypse.htm>

The dealings of Marvin Bush have been covered by journalist Margie Burns, published on the internet, check out at a search engine.

7. WTC7: Larry Silverstein, building owner who sued for over \$6 billion in damages from insurances for 9-11-1, has admitted on TV that building 7 was taken down on 9-11-1 (most reports say about 5:30 p.m.) by way of a controlled demolition. Much has been written about this key admission, see for example:

<http://www.infowars.com/print/Sept11/FDNY.htm>

<http://www.serendipity.li/wot/wtc7newspaper.htm>

<http://www.rense.com/general47/pulled.htm>

<http://www.911review.org/Wget/www.whatreallyhappened.com/cutter.html>

http://www.wtc-terrorattack.com/wtc7/collaps_wtc7.htm

<http://www.the7thfire.com/Politics%20and%20History/WTC7Fairytale.htm>

The Silverstein family, a major campaign financier of Bush, is reportedly closely linked to the Connecticut terror cell that orchestrated 9-11-1, see my report, section III, paragraph “The financial contacts ...”,

<http://www.cloakanddagger.ca/media/Grossmann/Four%20Horsemen/066%20Four%20Riders%20of%209-11%20Apocalypse.htm>

8. WTC6: This building erupted like a volcano with a huge explosion plume at or around 9:04 a.m. on 9-11-1. It left two craters in the building, (photo linked below) and all windows were broken
<http://parrhesia.com/wtc/tn/wtc063.jpg.html>

Building 6 was the U.S. customs building. It had a mere 8 floors, and its collapse is inexplicable in terms of the Bushfraud government's fraudulent "collapse" theory. The explosions "non-coincidentally" took place at the same time as the U.S. Air Force flew a cruise missile camouflaged to look like an airplane into WTC2 (south tower).

Here are some more details:

Overview on Peter Meyer's site with one of the photos:
http://www.serendipity.li/wot/wtc_other.htm

Article by Christopher Bollyn:
http://www.americanfreepress.net/07_14_02/Unexplained_9-11/_unexplained_9-11_.html

The meticulous sleuths at
<http://www.911research.wtc7.net/wtc/attack/wtc6.html>
have additional details:

„WTC 6 was an 8-story building that stood directly northeast of the the North Tower (WTC 1). It housed the offices of 760 employees of the U.S. Customs service.

800 workers were evacuated from WTC 6 within 12 minutes of the first plane striking the North Tower. That impact caused debris to rain down on the roof of Building 6 which was adjacent to the impacted wall of the tower.

WTC 6 was severely damaged on September 11th with 2 holes that extend the height of the building. The photo, from directly overhead WTC 6 on September 23, shows a large crater in the center of the building, and a smaller one in the southeast end (right-hand side of photo). The holes had remarkably clean profiles, with the same region punched out of each floor. (...)

Serious fires raged through WTC 6 for hours. Despite the massive structural damage shown by the holes, and fires far more severe than those in WTC 1, 2, and 7, WTC 6 did not collapse.

[The cratered stump of] WTC 6 was demolished [by December 2001] as part of the clean-up of ground zero. FEMA, the agency charged with investigating the disaster, did not collect any data on this building.“

Here is a screenshot from a CNN video that shows how, seconds after the pseudo-UA175 UFO hit south tower, building 6 (the building itself is too low to be seen here) erupted in a huge explosion blast like a volcano (quick-rising dust plume to the left of the large tower):



9. SEISMIC: Seismic recorders of a university recorded sharp explosion spikes like a Richter scale 2.2 earthquake at the beginning of each collapse of the twin towers. Details:

Article by Christopher Bollyn:

http://www.americanfreepress.net/09_03_02/NEW_SEISMIC_/new_seismic_.html

Scientific analysis:

<http://www.911research.wtc7.net/wtc/evidence/seismic.html>

More details in my book "T MINUS 9-11" (pages 277-282) at www.gallerize.com

10. EXPERT WITNESSES AND EYEWITNESSES

&

11. PHOTOS & VIDEOS:

To understand better that a missile and no commercial airplane hit the towers and that numerous explosives were placed in the towers, review Van Romero

<http://st12.startlogic.com/~xenonpup//experts/>,

engine 7 fireman Joe Casaliggi

<http://st12.startlogic.com/~xenonpup/collapse%20update/Engine-7.htm> ,

the NYFD security chief Albert Turi who collected reports of explosions from his firemen

<http://www.prisonplanet.tv/articles/may2004/050504bombsinwtc.htm> ,

Henrik Melvang/and another (anonymous) Danish researcher

<http://www.bombsinsidewtc.dk/> and <http://www.terrorize.dk> (with good photos and videos)

Melvang alleges on his web sites that there were bombs in the World Trade Center, that they exploded their main charge before the towers started collapsing (as the seismic recorders prove with certainty) and that he has five videos of news stations taken on 9-11-1 that show huge dust clouds from ground/underground explosions before (repeat: before) the towers started collapsing. One such video is the

[first.plume.of.smoke.wmv](http://www.first.plume.of.smoke.wmv)

that is linked on his page

<http://www.terrorize.dk/9-11.php?pid=misc>

Look at the foregoing video several times. *When the camera looks up you see both twin towers standing. (After the fall of south tower, you would see a very wide mushroom cloud in its place which is not here yet.) Yet, at the same time, you see the huge explosion dust cloud (not „fire smoke“) at the ground.* That is additional 100% proof of the huge pre-collapse explosion that the seismic recorders recorded. The twin towers were bombed.

Thus:
IT WAS A
BUSHBOMB!

Further, see under the general search term „9-11 explosions“, such as the following sites:

<http://www.letsroll911.org/articles/controlledemolition.html> (eyewitnesses)

<http://www.thememoryhole.org/911/veliz-bombs.htm> (survivor)

<http://911research.wtc7.net/wtc/analysis/collapses/explosions.html>

<http://911research.wtc7.net/wtc/analysis/theories/explosives.html>

<http://911research.wtc7.net/pentagon/analysis/conclusions/explosion.html>

http://www.firehouse.com/terrorist/11_APdc.html

<http://users.compaqnet.be/genealogy.search.family.history/911-wtc-new-york-attack-survivor-victim-list.htm> (links some survivor accounts)

<http://www.firehouse.com/terrorist/911/magazine/gz/hansson.html> (Lieutenant Greg Hansson's report)

http://www.prisonplanet.com/analysis_lavello_050503_bombs.html (Randy Lavello)

<http://www.truthorfiction.com/rumors/s/survivor3.htm> (Sujo & Mini)

<http://www.mrbellersneighborhood.com/sec9/theashenguy> (a survivor reporting of an explosion)

<http://www.whatreallyhappened.com/eyewitness.html> (eyewitness bomb reports)

<http://www.911blimp.net/videos.shtml> (scroll near end for the video testimony of a NY fireman of a pre-collapse explosion)

By its very nature, this evidence cannot be disproven. Not even the government can prove that there were “no explosions” at the WTC since this would require a God-like knowledge. Under evidentiary standards, it is compelling to believe the many credible eyewitnesses who felt, heard and saw large explosions in and under the twin towers, especially at the time of the two collapses.

12. HUGE DUST CLOUDS: The huge dust clouds are the result from expanding explosion gases. The physics of this is somewhat complicated but scientifically sound. It indicates large explosion energies around 100 times greater than the gravitational energy of the collapses. See scientific article by Jim Hoffman,

<http://physics911.org/net/modules/news/article.php?storyid=12>

The dust clouds consisted mainly of the pulverized cement of the twin towers. This was not normal cement dust but consisted of microscopically fine nano-particles that are caused by extremely strong explosion forces and by scalar (harmonic) weapons. The twin towers did not only collapse but were pulverized,

<http://www.911research.wtc7.net/wtc/evidence/steel.html>

This does not happen by fires.

13. The glow indicates radiation as from a nuclear device or use of scalar distance weaponry. It is the only energy apparent at the World Trade Center that could actually melt steel into liquid pools (see next answer). Since no complaints of nuclear radiation sickness have become loud by any of the many helpers at ground zero, this would indicate that the bright flare was not nuclear but scalar.

14. Yes. For about three weeks, the basements of the twin towers at “ground zero” were filled with pools of hot molten steel.

http://www.americanfreepress.net/09_03_02/NEW_SEISMIC_/new_seismic_.html

Here is the government report on the unusual and persisting thermal hot spots resulting from the molten steel in the caverns beneath ground zero:

<http://pubs.usgs.gov/of/2001/ofr-01-0429/imspec.html>

No fire caused this. It is evidently the result of a major explosion at the time when each tower collapsed. The flare mentioned above is a sign that either nuclear or scalar weapons were used. For scalar weapons in general, see Tom Bearden’s web site,

www.cheniere.org

After carefully reviewing all of the foregoing evidence (which takes at least several days), it is fully evident that the WTC twin towers were attacked by missiles and then were cut down on 9-11-1 by detonators in controlled demolitions.

*And here is even much much
more:*

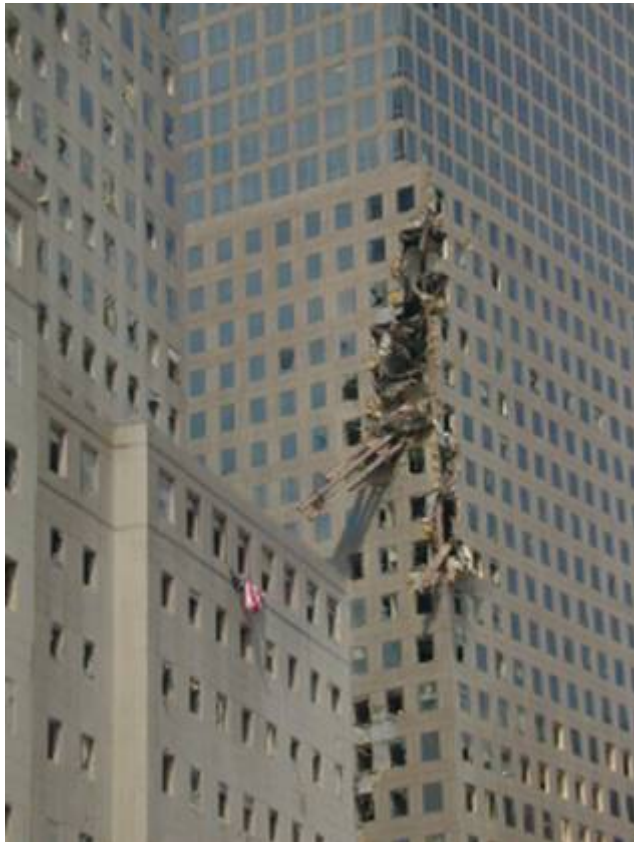
I SEE A GREAT WIND ...

It is coming from the tower ...

It drives a huge steel beam that is twice as heavy as a large airplane over 390 feet and sinks it deep into a neighboring building.

The riddle: On what wind did the steel beam ride?

The answer begins here:



The beam weighed 600,000 pounds.
It drove deep into the building.
It happened in Manhattan on 9-11-1
when the World Trade Center exploded
through a gigantic set of bombs.

The American government meticulously
reported that this heavy beam flew from the
tower into its neighboring building, over
390 feet away.

A basic Boeing 767-200 has a maximum gross weight of 300,000 pounds. To get to fly, it needs a runway 5,700 feet long.

The huge steel beam rocketed from the dying tower in under ten percent of that stretch. Like it was accelerated by the sling of an aircraft carrier.

The government then put this information in its public internet digital archive of the Library of Congress, <http://www.911da.org/crr/images/CRRDB/data/documents/3424.htm>

The building is the building of American Express (World Financial Center 3), <http://www.wirednewyork.com/wfc/3wfc/default.htm>
<http://www.cgaux1sr.org/photo/WTC/P00Web04837.jpg>
<http://www.cgaux1sr.org/photo/WTC/P000Web6004836.jpg>

Its closest corner was 390 feet away from the closest corner of the twin towers, FEMA Building Performance Report for the World Trade Center, chapter 1, maps and graphics, especially page 1-12, figure 1-9A, with scale in feet, pdf online, <http://www.fema.gov/library/wtcstudy.shtm>

If you know of any other way how to accelerate such 600,000 pound steel beam except strong explosives, please e-mail me at stefangrossmann@t-online.de.

The steel beam was not driven out when the flying object hit the building because the beam is from the inside of the dying building. No such ejection is seen on video, either. Further, the building that was hit is too far on the side and is thus in the shadow or near shadow of the initial impact explosion. Hence – the steel beam flew into the World Financial Center when the World Trade Center collapsed. Obviously through bombs.

No bombs – no 600,000 pound beam flying over 390 feet and piercing into the other building.

Have other people noticed that the World Trade Center was heavily rigged with bombs on 9-11-1? Yes, these people are eyewitnesses. Let us work up to them over the next pages:

THE WINDY TOWERS OF 9-11

Strange Air Streams at the Collapsing Towers

Stefan Grossmann, <http://www.gallerize.com/>, July 10th, 2004

*When there was a huge explosion in the lobby,
all the windows popped to the outside.
What, then, made the windows and
their framing 1,000 pound steel
spandrels rocket away from
the towers and fly for
100s of feet???*

*They were as big as trucks
- I didn't say: -- ducks.*

Have you read and digested my 9-11 TEST FOR WEBSLEUTHS?
<http://www.cloakanddagger.ca/media/Grossmann/081%209-11%20Tests.htm>

If so, you are ready for the explosions. Fasten seat belts, it's very windy here:

I.

Terror Tuesday was a beautiful sunny cloudless September morning, 9-11-1. By no coincidence alone has our Great Creator given it the same date as the emergency phone number, 911.

Not only was the morning cloudless and sunny. But windy as well:



All the time, windy. Smoke blowing in the wind in one direction.

Until:



Like when a new Pope is elected, the smoke turned light.
(an anonymous Danish researcher's eagle eye has seen, and he marked,
the secondary explosion coming from mid-height.)

And the wind changed. It now came from inside the building, blowing out in all four directions.

II.

Albert Turi is the guy who explained on 9-11-1 to NBC's Pat Dawson that there were secondary explosions in the towers and that bombs were planted there.

Many other firemen together with Turi made these observations of bombs exploding. Some firemen used the expression “detonators”.

Several days later, experts and witnesses throughout the U.S.A. like on command recalled their bomb testimonials. It never became clear what later observations prompted them to change their original observations.

Were the later observations that changed them new insights about the towers, or were they observations of a person talking to them?

Alex Jones has reported that the New York Fire Department got a “security consultant” – a former head of the CIA. This slug made a special point to tell the members of the New York Fire Department to shut up and not talk about the bombs that they saw, heard and felt in the twin towers on 9-11-1 before the towers fell.

That’s what is called the rule of law. The law of silence.

III.

But bombs aren’t silent. They wish to talk.

Even through the thick curtain of censorship.

Turi gave another interview, this time in October 2001. To a comrade in the NYFD. The interview ended up being printed in the New York Times.

Get a flavor of Turi’s October 2001 interview:

Let me stop you there for a second, Chief [Turi]. When you were in the lobby of 1 World Trade, can you describe the interior and the condition of the lobby?

A. Yes. I was surprised that all the glass was mostly out. I wasn’t sure how it got out. I didn’t think we took it out. I just assumed that it was the vibration of the aircraft hitting it. And I did notice some pieces or marble that looked like it was dislodged from the core area.

Q. Can you describe how many civilians you might have seen at that point?

A. I can talk about that because that surprised me. There were very few civilians, very few, which just led me to believe they had already left, the people that could

get out on their own, or they were exiting another way out I couldn't see. But usually during a high-rise fire, and I've been to 20 of them in my career, there's usually so many civilians in the lobby that it becomes a problem, and that was notably absent.

Marble dislodged from the core area of the lobby? Civilians notably absent? Hmm!

Al Turi talks further:

C. Absolutely. That conversation, by the way, took place in the ramp driveway leading into the garage?

A. That is correct; right at the ramp. The ramp was still on the exterior. We were not in the garage. Maybe 20 feet from the opening of the garage.

The next thing I heard was Pete say what the . . . is this? And as my eyes traveled up the building, and I was looking at the south tower, somewhere about halfway up, my initial reaction was there was a secondary explosion, and the entire floor area, a ring right around the building blew out. I later realized that the building had started to collapse already and this was the air being compressed and that is the floor that let go.

Note: uhuh, it ain't so! You're mistaken, Chief Turi! We know that the horizontal explosions started BEFORE the collapse began, see:



And as my eyes traveled further up the building, I realized that this building was collapsing and I turned around and most everybody was ahead of me running for the garage, and I remember thinking I looked at this thing a little bit too long and I might not make this garage. But I did.

We know the New York firemen are okay. They are not in bed with crooked Bushfraud.

Through the veil of censorship, Turi is telling us his most important observation: The bombing of south tower started in the ground floor lobby, then later on in the middle around the 50th or 60th floor. Then as Turi looked higher up the building, he saw that its top was collapsing.

In order to sneak past censorship, Turi explains that in the middle of the tower, a floor was collapsing and the exiting winds were air being compressed by the falling floor. He starts this particular explanation with the words, “I later realized” We may read: “Our CIA security consultant later instructed me”

No fires were burning in the middle of the tower. Where there is no smoke there is no fire. The smoke and hence the fire started higher up, in the higher 70s.

And wind was coming out.

IV.



In the right of the photo, no wind is driving out a dust cloud because the tower is still more or less straight.

In the left of the photo, wind is driving out a dust cloud because the tower is still more or less straight.

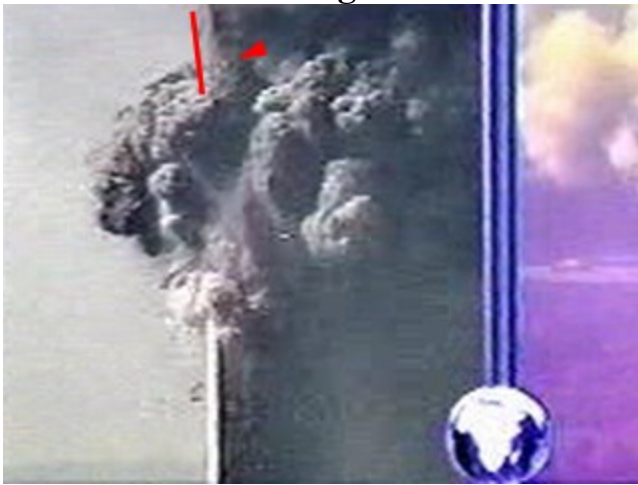
Is this the logic of Abu Ghraib?

Let's try again:

In the right of the photo, no wind is driving out a dust cloud because there are no bombs there to create the wind.

In the left of the photo, wind is driving out a dust cloud because there are bombs there to create the wind.

And to cut the building down:



Also known as the south tower collapse. Here: its beginning. Through bombs.

Notice: Under the logic of Abu Ghraib, the smaller the slant of the beginning fall, the larger the “push” of the wind into the dust clouds – by bombs which triggered the fall.

Question: Who told the tower to follow the tortured logic of Abu Ghraib? Hey, did it have a CIA security consultant too?

V.

I would take argument on terminology. Maybe at this point, it was not longer a tower but a large bomb. Towers don't explode and go up in dust. Bombs do. Bombs create exploding gases. Such as in the photos of south tower collapse. (And north tower collapse.)

Under these standards, the whole World Trade Center was a bomb:



The World Trade Center: gone!

One key reason why the U.S. government criminally disappeared the entire crime scene is so no one can measure and weigh that nearly all the cement was pulverized to fine nano-dust.

Like in a controlled demolition.

The updraft (upwards winds driving the clouds up) is thermic. Hot air rises.

Air becomes hot when it is heated.

Like in a controlled demolition:

VI.

The Seattle Kingdome: gone!



Mark Loizeaux, president of Controlled Demolition Inc., holds up a "scorpion." On Sunday, the machine will generate a 600-volt electrical charge to set off the explosives that bring down the Kingdome. (March 22, 2000)

Photo Credit: Renee C. Byer/Seattle Post-Intelligencer



The Kingdome disappears into a cloud of dust, as seen from Victor Steinbrueck Park at the Pike Place Market. (March 26, 2000)

Photo Credit: James Johnson/Seattle Post-Intelligencer



A huge cloud of dust moves toward downtown after the Kingdome's implosion. Afterward, work crews toiled for hours to clean up the debris. (March 26, 2000)

Photo Credit: Paul Kitagaki Jr./Seattle Post-Intelligencer



Fine dust from the implosion turns the red bricks of Pioneer Square a subtle gray. (March 26, 2000)

Photo Credit: Mike Urban/Seattle Post-Intelligencer



A worker strides across one of the Dome's fallen "ribs" after the implosion. (March 26, 2000)

Photo Credit: Dan DeLong/Seattle Post-Intelligencer



Boats packed Elliott Bay Sunday morning to watch the implosion from the water. Although Washington State Ferries attempted to stick to a normal schedule despite the demolition work, vessels were delayed by the marine traffic jam. (March 26, 2000)

Photo Credit: Paul Kitagaki Jr./Seattle Post-Intelligencer

(Texts under these photos from Seattle Post.)

VII.

It was a Loizeaux. I can always tell a Picasso painting, too (especially when it is signed!)

VIII.

Let's look at the explosion wind from how the south tower was hit:



South tower is on the right of north tower, just seen exploding from the hit. Note the clouds expanding out of south tower due to the explosion wind.



This photo shows the explosion wind during the collapse of south tower. The explosion wind is even stronger than at impact because it drives heavy steel debris far out from the tower. **According to witnesses, such debris was blasted out (by Bushbombs) as far out as Battery Park to the south, and to the east even to Brooklyn Bridge which is about a mile away from the site of the World Trade Center. This is clear evidence of explosives of the most massive type. We will get to the witnesses on page four of this article.**

Note at the ground near-by south tower the growing dust cloud from the ground explosion that was seismically recorded with the force of a Richter scale 2.2 earthquake instants before the tower started collapsing.



A look at the north tower hit for comparison. – By the way, look in the top left corner of this photo – what do we see there? More wind! From bombs! Obviously not related to the impact!



Two of the famous yet unexplained UFO photos from 9-11.
They underline the strangeness of the case.



Signed by the uniform demolition mode. Lend wings to steel debris,
and you get the windy towers of 9-11 as they collapse.



North tower collapsing. Did gravity let the steel fly?
No, it was the winds of 9-11. Blowing from out of the building.



Rising mushroom cloud.
What lets this mushroom grow?
Ask someone in Hiroshima!



„Some of these buses were found melted in the debris of the WTC.”

Information provided by: <http://www.nidhin.com/wtctour.html>.

This matches with the pools of molten steel in the basements of the WTC after the attacks. There are many signs that before the collapses, temperatures were under 500 degrees Fahrenheit in the rooms of the twin towers (paper did not burn, PC hard drives survived, firemen saw no hot raging fire infernos but only fire pockets, etc.). At the end of each collapse, a huge flash of light shined, and apparently at such time large amounts of steel melted, including such buses enveloped by the whirlwind of steel, glass and dust. This distinguishes the fall of the twin towers from natural collapses – they collapsed unnaturally, of very powerful controlled demolition explosions.

We know the U.S. Army has a weapon that melts buses, see <http://www.rense.com/general40/secret.htm>, a quote:

On that date [Baghdad, 4-12-3], al-Ghazali and his family sheltered in their house as a fierce street battle erupted in his neighborhood. In the midst of the fighting, he noticed that the Americans had called up an oddly configured tank. Then to his amazement the tank suddenly let loose a blinding stream of what seemed like fire and lightning, engulfing a large passenger bus and three automobiles. Within seconds the bus had become semi-molten, sagging “like a wet rag” as he put it. He said the bus rapidly melted under this withering blast, shrinking until it was a twisted blob about the dimensions of a VW bug. As if that were not bizarre enough, al-Ghazali explicitly describes seeing numerous human bodies shriveled to the size of newborn babies. By the time local street fighting ended that day, he estimates between 500 and 600 soldiers and civilians had been cooked alive as a result of the mysterious tank-mounted device.

More on such Tesla-Bearden “scalar” ray weapons: www.cheniere.org.

GROSSMANN assumes that the yellow entry flash one instant before the pseudo-planes hit the twin towers was of this same nature, in order to melt a hole for the in-flying missiles, seen as a plane-outline “impact hole” in the steel-column tower walls.
(See **BEARDEN** in the alphabetical witness list on page 4 of this article.)



Roarin' winds ...

The poetry of winds is that they spread steel debris like leaves in autumn.



Look at the yellow/orange marked area. Buildings in this area were „damaged but stable“ (on another map: “damaged but stable/ready for occupancy after repair”) during the attacks on the World Trade Center on September 11, 2001.

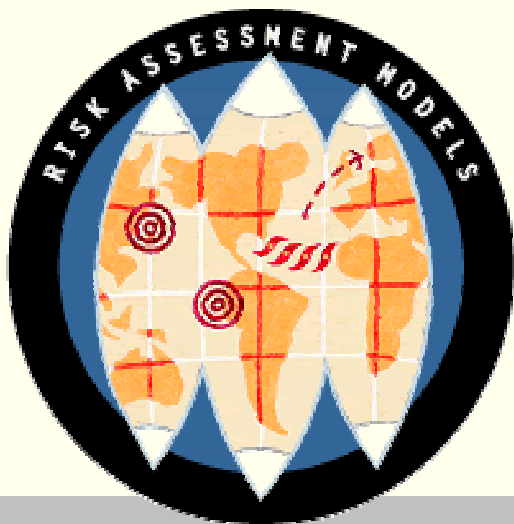
My question is: How could heavy damaging debris be spread so far?

Some of the heaviest damage was in sectors where the initial explosions did not reach because the areas were in the shadow of the initial explosions.

It's the winds of 9-11! They carry destruction and steel!

Let us insert here a key 12 page detail report by the insurance industry of the huge damage field in Manhattan with a radius of 3000 meters (over 1.5 miles) around the WTC bombing site (overleaf):





World Trade Center Disaster

RMS Special Report
September 18, 2001



Risk Management Solutions

SUMMARY

This report summarizes research, and limited on-site reconnaissance, conducted over the past week to help qualify, and quantify as best as possible, the magnitude of the damage and insured loss from the September 11 disaster at the World Trade Center. In preparing this information, RMS is mindful that this catastrophe has directly impacted many of our clients, their offices, and most critically their personnel.

This unprecedented catastrophe presents a difficult challenge to all who are trying to estimate potential exposures and losses. The lack of authoritative information is evoking considerable speculation. Last Friday, Sax Riley, Lloyd's chairman said that loss quantification at this stage was meaningless, and the week's events had "generated the most complex set of insurance liabilities and inter-dependencies the industry has ever seen."ⁱ On Monday, an opinion was finally given on a key question affecting all loss estimation efforts. According to Hannover Re, the "\$4.1 billion property insurance policy covering the World Trade Center did not include an explicit terrorism exclusion clause within the contract."ⁱⁱ Therefore, it is now quite likely that the insurance industry will cover the majority of claims arising from this disaster.

Although RMS does not explicitly model this type of event, modeling analytics and lessons from natural catastrophes can provide some useful guidance in helping frame the potential insurance consequences of this tragedy. Insured losses from this disaster will come from several main categories: Property Damage, Business Interruption, Casualty, Liability, and Aviation covers.

In this report, RMS concentrates on identifying the property impacts and potential losses. RMS estimates that the property component of losses will be \$7 to \$11 billion, including building, contents, and direct business interruption losses generally associated with property claims. This estimate is based on an analysis of the damage mechanisms, exposure densities, and replacement costs for five damage potential zones in the disaster region. More details are provided in the Property Damage section of this report. An additional section discusses issues affecting contingent business interruption, casualty, aviation, and liability losses for this disaster.

As major re/insurers release early estimates, rating agencies and analysts are estimating that the total industry loss will be in the \$20 to \$30 billion range.ⁱⁱⁱ Based upon the analysis outlined herein, RMS expects that the total insured loss may reach, or even exceed, \$25 billion, making this the costliest insured catastrophe in history. Furthermore, the nature of the likely losses, and loss concentrations within the commercial sector, suggest that a significant portion of the total loss will be borne ultimately by the reinsurance industry, particularly institutions outside the U.S. While the overall loss will be unprecedented, it is important to note that most re/insurers' balance sheets, and the industry as a whole, are capitalized to withstand catastrophe losses well in excess of the current estimates for this event. For example, the 100-year natural catastrophe loss in the U.S. is about \$50 billion in property losses alone.

Key factors influencing the total loss outcome are the business community's ability to recover quickly, as well as liability issues. RMS will continue to research this disaster and refine our analyses as engineering surveys are completed and more information becomes available.

PROPERTY DAMAGE

Property-related claims for the WTC disaster will include building, contents, and direct business interruption losses. Contingent, or indirect, business interruption losses are discussed in a following section.

Property losses will extend well beyond the immediate devastation zone surrounding the World Trade Center (WTC) towers. Although this disaster is of a very different magnitude, its impact is not unlike the 1995 Oklahoma City bombing of the 9-story Alfred P. Murrah building, which severely damaged or destroyed 25 nearby buildings and damaged another 300.^{iv}

To estimate the nature and intensity of the loss extent beyond the WTC towers, RMS has researched a series of potential damage mechanisms and considered the loss levels each is likely to have caused. A set of concentric zones has been defined, centered on the WTC complex, in order to categorize the levels of property damage and potential levels of loss (see Figure 1).

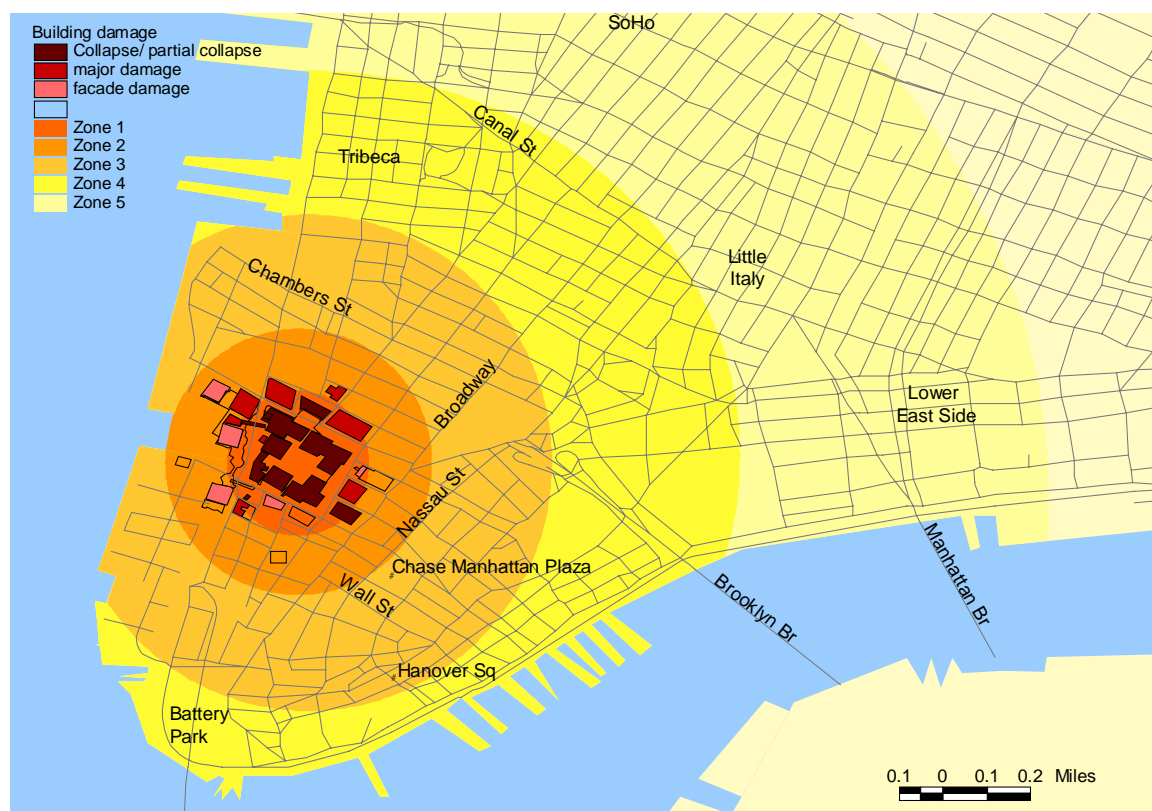


Figure 1. Buildings in the WTC complex and Five Damage Potential Zones

Building heights, commercial and residential square footages, replacement costs, and industry exposure values were then used to estimate potential loss ranges within each zone (see Figure 2). Sources of information for these calculations include: RMS 2000 Industry Exposure Database; Dun and Bradstreet commercial square footage; Marshall & Swift building replacement cost data; and New York City Area Consortium for Earthquake Loss Mitigation, Year Two Technical Report, 1999-2000.

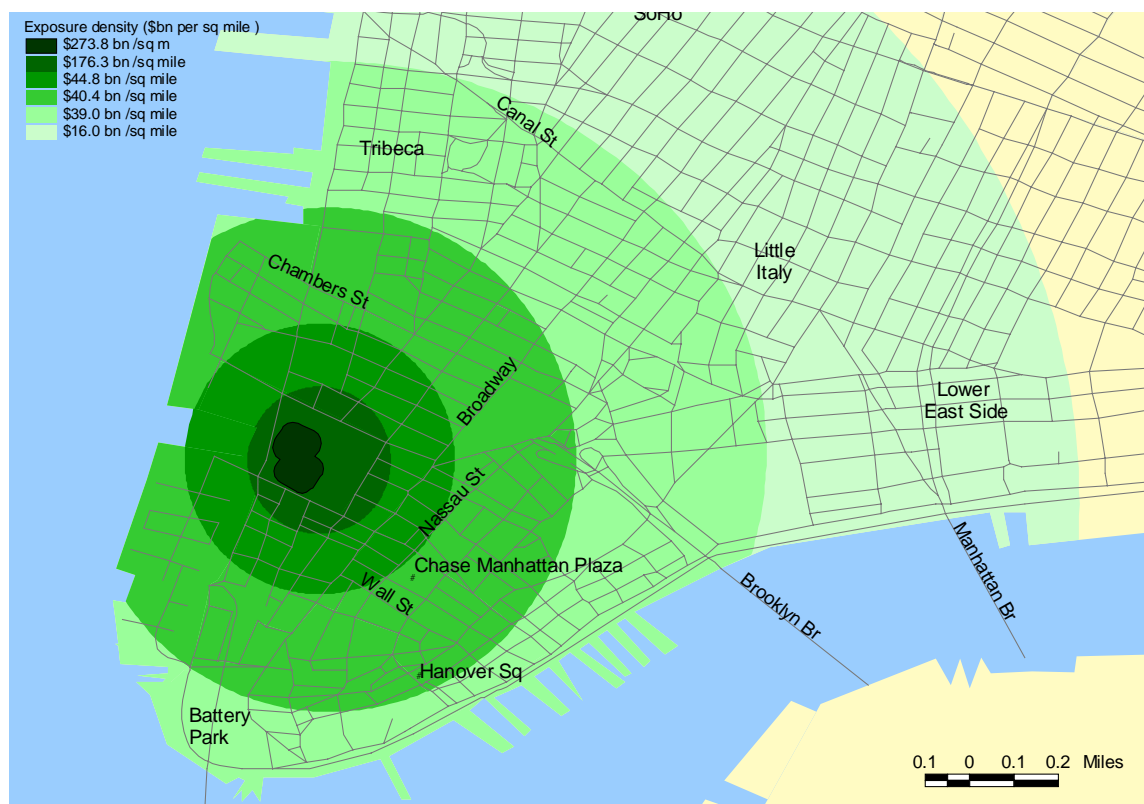


Figure 2. Exposure Density (\$Billion per sq. mi) in Five Damage Potential Zones

Estimates resulting from this analysis are still approximate. As reports become clearer, damage levels for each affected building will be established, and loss estimates can then be refined. There are several (public access) web sites that clients can consult for details on specific buildings within the disaster zone. Two recommended web sites are: www.mrofficespace.com, and www.skyscrapers.com.

Damage Mechanisms

Beyond the collapse of the two main towers, losses in this disaster were caused by five key damage mechanisms.

Fire

Buildings in close proximity to the WTC were vulnerable to fire from the conflagration of the collapsed, burning towers. Given that the fire department was focused on life safety issues on-site, fire fighting in evacuated facilities was minimal. The extent of fire damage to these buildings could be extensive and may have played a role in the collapse or severe structural damage of several of these structures.

Massive Projectile Debris

Massive debris-related damage was caused by falling debris generated as the towers collapsed. This debris includes the bulk of building mass that disintegrated over a footprint 2 to 3 times the radius of each building's base, as well as large steel and concrete beams that, during the implosion of the towers, were ejected well beyond this footprint area. This is likely to be the principal agent of damage for most buildings near the WTC complex.

Airborne Debris

The pancake collapse of the tower floors created a major airborne "debris-surge" laden with all kinds of materials ejected in the collapse. The debris-surge cloud initially spread out at very high speeds of over 50 mph (80 km/hr). It then channeled into the surrounding canyon streets, spreading more than 1/2 mile (800 m) from the WTC site. As in a volcanic eruption, the maximum particle size decreased with distance away from the site. Close in, the airborne debris is up to 2 inches (50 mm). A thin film of dust resulting from the collapse and the ash from the fires was reported as far away as Greenwich Village – 2 miles (3,200 m) from the WTC complex.

Pressure Wave

The rapid collapse of the towers created a pressure wave, similar to very strong wind gusts, that affected buildings near the WTC complex. This wave caused some damage to windows and cladding on buildings within, at most, 650 feet (200 m) of the WTC complex (which is generally within the zone also affected by massive debris damage).

Vibration and Ground Deformation

The WTC complex and surrounding area is built on thick fill over bedrock. Any ground deformation associated with a sudden transfer of load would potentially damage the foundations of non-piled buildings, roads, and underground infrastructure, including pipes and the subway. Reports of gas leaks and road damage are now emerging, probably caused by the collapse of underground structures triggered by the impact of the collapsing towers. There is speculation that the collapses caused ground vibrations sufficient to have damaged some nearby properties. Since there are no confirmed reports of vibrational damage, this analysis assumes that vibrations alone did not cause losses.

Damage Potential Zones and Loss Levels

Considering various reports and potential damage mechanisms, five damage potential zones and their distance from the WTC complex have been estimated. A detailed discussion of the damage mechanisms, potential loss levels, and exposed values in each zone follows.

<i>Zones</i>	<i>Radius from WTC</i>	<i>Exposed Property (\$ millions)</i>	<i>Avg. Loss Levels</i>	<i>Property Loss Potential</i>
1. Collapse & Fire	650 ft (200 m)	\$9,849	50% to 100%	\$7 - \$9.6 billion
2. Massive Debris	1,300 ft (400 m)	\$2,165	10% to 20%	<\$500 million
3. Thick Airborne Debris	0.5 mi (800 m)	\$21,810	1% to 2%	<\$450 million
4. Thin Airborne Debris	1 mi (1,600 m)	\$30,131	<0.5%	<\$150 million
5. Far-Field Impacts	2 mi (3,200 m)	\$21,675	<0.1%	<\$20 million
Totals		\$85,630		\$7 - \$11 billion

Zone 1 - Collapse and Fire

Radius: 650 feet (200 meters)

Zip Code: 10048

Buildings and Boundaries: Includes the World Trade Center, towers 2, 3 and 4 of the World Financial Center, One Liberty Plaza, the Millenium Hotel, 90 West Street

Estimated Building Square Footage: 29.4 million (100% commercial)

Avg. Replacement Cost^v (per sq. ft): ~\$335

Damage Description: Damage caused primarily by building collapse, fire, and massive debris surcharge onto neighboring buildings. Damage may have resulted also from the pressure wave and ground vibration. Fire ignitions are reported in at least 2 neighboring buildings. Each tower has a footprint area of 40,000 square feet (60m x 60m). Both collapses were mainly vertical with relatively minor angles of fall. The south tower collapsed in a southeast direction and the north tower in a northwest direction. Exterior structural damage is evident on buildings near the collapse zone. The majority of building mass from each tower appears to cover an area extending 650 feet (200 meters) from the center of each tower. The radius for large-sized debris extends beyond this footprint, up to 1,300 feet (400 meters) away. Thick dust up to 2 inches (50 mm) within this zone could cause major damage. For example, ash from volcanic eruptions has been known to cause significant property loss by clogging air conditioning and other mechanical and engineering (M&E) plants in highly serviced buildings. Although the total volume of dust produced by the WTC collapses is not necessarily comparable, varying levels of damage across a wide area may result from dust clogging and penetration.

Loss Assumptions: WTC Complex – 100%; Surrounding buildings – 50% to 90%

Zone 2 – Massive Debris

Radius: 1,300 feet (400 meters)

ZIP Codes: 10281, and parts of 10006, 10007, 10005 and 10038

Buildings and Boundaries: Encompasses the area west of Nassau St, north of Rector St, and south of Warren St., and incorporates the rest of the World Financial Center

Estimated Building Square Footage: 6.5 million (80% commercial; 20% residential)

Avg. Replacement Cost (per sq. ft): ~\$330

Damage Description: This zone is beyond the range of fire spread and damage mechanisms are primarily from falling debris, collapse, possible pressure waves resulting from the collapse, and airborne debris. Building damage is characterized by large debris falling on roofs, damaged cladding, and many broken windows. Structural damage is suspected on many buildings in this zone, and engineering surveys are being conducted. The few collapses within this zone may have been caused by the additional loads generated from debris landing on their roofs. Remaining buildings may have suffered serious roof damage as well as structural distress short of collapse. Photographs of the collapses show parabolic plumes of large pieces of debris thrown out by the collapse. There are isolated reports of missiles and debris pieces landing up to 1,600 feet (500m) away. Debris-related projectiles may cause significant damage to cladding and roofs. Dense dust over 1 inch (25 mm) within this zone could cause major damage. There are media reports of buildings whose air conditioning systems cannot restart, due to dust-related damages. Dust penetrates into building interiors, either through broken windows or through air conditioning systems. It can damage sensitive IT equipment, finishes and furnishings of the buildings, which can lead to expensive re-equipping and refurbishing costs.

Loss Assumptions: 10% to 20% loss levels

Zone 3 – Thick Airborne Debris

Radius: 0.5 mile (800 meters)

ZIP Codes: 10280, 10004, 10005, the west part of 10038 and point codes 10279 and 10278

Buildings and Boundaries: Encompasses most of the streets south of Chambers Street, north of Battery Park and west of Water Street; this includes the 9 to 10 block area around the WTC complex, which police cordoned off during the first week, as well as Wall Street

Estimated Building Square Footage: 72.7 million (65% commercial; 35% residential)

Avg. Replacement Cost (per sq. ft): ~\$300

Damage Description: Scattered items of smaller debris and wind-blown missiles could cause damage by falling on roofs and breaking windows. Deep dust of 0.5 inches (10mm) is possible within this zone, resulting in mechanical damage (e.g. clogging to air conditioners) and damage to equipment and finishes. Electrical power outages, lasting at least 5 days, extend into this zone. Media reports also suggest that building damage extends into this zone, although the frequency and severity of the damage will only emerge with full professional surveys.

Loss Assumptions: 1% to 2% loss levels

Zone 4 – Thin Airborne Debris

Radius: 1 mile (1,600 meters)

ZIP Codes: 10013, northern part of 10007 and 10038

Buildings and Boundaries: This area encompasses streets south of Canal St and Catherine St., including the County and U.S. courthouse areas

Estimated Building Square Footage: 103.9 million (65% commercial; 35% residential)

Avg. Replacement Cost (per sq. ft): ~\$290

Damage Description: Thick dust of 0.25 inches (5mm) is possible within this zone, requiring major clean-up and resulting in mechanical damages as well as damage to equipment and finishes.

Loss Assumptions: <0.5%

Zone 5 – Far-Field Impacts

Radius: 2 miles (3,000 meters)

ZIP Codes: 10012, 10014 and 10002

Buildings and Boundaries: The northern boundary of this area is Washington Square

Estimated Building Square Footage: 85.6 million (65% commercial; 35% residential)

Avg. Replacement Cost (per sq. ft): ~\$250

Damage Description: Light dust of 0.04 inches (1mm) is possible within this zone, requiring clean-up and possibly resulting in damages to equipment and finishes.

Loss Assumptions: <0.1%

OTHER KEY LOSS COMPONENTS

Contingent Business Interruption

The economic consequences of business interruption in this disaster will be significant, and there are a host of issues to be considered. It is likely that many building owners and tenants in Lower Manhattan had business interruption cover because of the critical nature of their financial operations, as well as the experiences gained from the 1993 WTC bombing. This section considers the causes and potential scope of contingent, or indirect, business interruption, which typically is not an insured loss.

Quantifying the recovery time for such an unprecedented disaster is difficult. Key factors to consider are: 1) the likely duration of infrastructure and service disruptions, and 2) the ability of companies to implement contingency plans and establish alternative facilities quickly. Jones Lang LaSalle, property consultants, estimates that 20 million square feet of office space in Lower Manhattan will be severely affected for some time.^{vi}

One week after the disaster, a large portion of Lower Manhattan was still without power. Electrical power outages across the financial district were reportedly caused by the WTC collapse onto two adjacent substations. A ConEd spokesman said that “the damage is pretty substantial, and we haven’t even begun to assess when it will be repaired.”^{vii} Telephone service has also been impacted.

Speculation is likely to continue for some time about whether this level of business interruption will result in significant long-term economic impacts on Manhattan’s financial sector, as well as the U.S. and international economy. Earthquakes in other industrialized areas, such as California, Japan, and Taiwan, have led to significant business interruption losses and subsequent economic impacts from infrastructure disruption (associated with long repair times).

In the 1994 Northridge Earthquake, public infrastructure repairs (primarily to damaged highways and underground utilities) cost more than \$6 billion of the estimated \$40 billion economic price tag. Total commercial losses are estimated at \$15 billion, of which the insured loss is estimated at \$4 billion and the business interruption costs (largely uninsured) are believed to be more than \$6 billion.^{viii} Similarly, the transportation and economic disruptions associated with the 1995 Kobe, Japan Earthquake were also high, and the long-term impacts on two of Kobe’s main business sectors - cargo shipping and synthetic shoe production - were significant. In Taiwan, the insurance industry’s \$1 billion loss for the 1999 earthquake came mostly for business interruption and damage to the “chip” manufacturing industry, severely impacted by the island-wide power disruption.^{ix}

While it is still early, there are some small bits of evidence that the impacts, particularly on Manhattan, are not going to be as severe as initially feared. Several major financial institutions affected by this disaster, including Lehman Brothers, Morgan Stanley, Salomon Smith Barney, and Merrill Lynch, have implemented contingency plans and are transitioning operations to alternative sites. Many cite success from the Y2K contingency planning undertaken in the recent past.

On Sunday night, September 16, Richard Grasso, Chairman of the New York Stock Exchange stated: “We have rebuilt the infrastructure to the point where I’m confident that 85 million Americans can be back in the greatest market in the world.”^x Power and telephone services were restored to many businesses in Lower Manhattan in anticipation of Monday’s market opening.

Casualty

As of Tuesday, September 18, New York City reports 218 confirmed deaths and 5,422 missing people. The numbers of individuals who were able to evacuate before the collapse are far higher than initially believed. Four major components of casualty losses to consider in estimates are: life insurance, accidental death and dismemberment (AD&D) coverage, long-term disability insurance, and worker's compensation.

Life insurance and AD&D coverage for employees are not mandatory benefits; however, employee benefit packages are likely to include all these components. Quantifying an average claim value is difficult since employee benefits vary greatly across companies and for different employees, especially executives. Principal Financial Groups estimates that employer-offered life insurance coverage is often equal to $\frac{1}{2}$ annual earnings.^{xi} Other industry sources estimate standard covers equaling 2 to 2 $\frac{1}{2}$ times annual earnings with maximum limits of \$500,000. The same estimates of 2 to 2 $\frac{1}{2}$ times annual earnings with maximum limits of \$500,000 have also been given for standard AD&D covers. In addition to employee benefits, there will be additional life insurance policies carried by individuals and spouses.

In the Loma Prieta and Northridge earthquakes, insurance payouts for fatalities averaged about \$1 million per person.^{xii} Several industry contacts suggest that this figure is a reasonable starting point for estimating these losses. For the banking and insurance industries, estimates of as much as 5 to 10 times annual salary for life insurance pay-offs have also been given.

New York state law has one of the lowest levels of statutory worker's compensation in the U.S. - with a maximum lifetime benefit of \$400 per week (\$21,000 annually) to the surviving spouse/dependents along with lifetime health care benefits - irrespective of how highly the worker was originally compensated.^{xiii} Maximum limits are not known. Long-term disability benefits may be equal to 50% to 70% of annual earnings with maximum limits.

Aviation and Liability

Liability issues are likely to be significant for this disaster. Aviation policies cover not only the loss of the aircraft but also the bodily injury and property damage caused by the four crashes. Aviation losses will result from both the hull covers and aviation liabilities. There are estimates that the hull cover for the four downed aircraft total \$500 million. In addition, there remains some uncertainty as to the extent of third party aviation liabilities. However, according to Hannover Re, "the limits of coverage of these policies for third party liability are \$1.5 billion per event."^{xiv}

Other third-party liability claims will result from a wide range of circumstances. It is difficult to estimate the total likely amount for these claims. However, it may be instructive to consider the liability claims modeled by RMS for catastrophic earthquakes. For example, RMS estimates general liability losses of \$6 to \$7 billion from a major earthquake impacting the Los Angeles region.^{xv} Liability losses in this disaster may be comparable.

ENDNOTES

ⁱ Insurance Day, September 14, 2001

ⁱⁱ Reactions, September 17, 2001

ⁱⁱⁱ Reuters, September 17, 2001

^{iv} Final Report: Alfred P. Murrah Federal Building Bombing, April 19, 1995, Fire Protection Publications, Oklahoma State University, 1996

^v Average replacement cost estimates are based on Marshall & Swift data, adjusted to account for contents replacement and direct business interruption costs.

^{vi} Financial Times, September 14, 2001

^{vii} New York Times, September 16, 2001

^{viii} Petak, William, et al. 2000. The Northridge, Earthquake and Its Economic and Social Impacts. Conference on Earthquake Risks in Europe, IIASA, Laxenburg, Austria, July 6-9, 2000

^{ix} Event Report: Chi-Chi, Taiwan Earthquake. RMS, 2000

^x CNN, September 17, 2001

^{xi} New York Times, September 13, 2001

^{xii} What If A Major Earthquake Strikes the Los Angeles Area? RMS, September, 1995

^{xiii} New York Times, September 13, 2001

^{xiv} Insurance Day, September 17, 2001

^{xv} What If A Major Earthquake Strikes the Los Angeles Area? RMS, September, 1995

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**But what is the source of such winds that drive debris so far sideways?
What have the eyewitnesses to say?**

IX.

A cautionary remark: Not all the eyewitnesses - unfortunately: the single most important - are friendly to the idea of having the truth come out. Such as: Mark Loizeaux and his demolition team, Larry Silverstein the avowed WTC building 7 bomber, Marvin Pierce Bush the WTC security company director who lifted security in the days before 9-11-1 (see **SUSPECTS** in the alphabetical witness list below).

Further keys: those in the New York city administration who control the damage and clean-up files more closely documenting the “mini-volcano fallout” from the bombs that deep-sixed the 110-floor twin towers on 9-11-1. Another candidate are the caretakers and owners of the Manhattan buildings that were damaged, with their precise fallout and damage descriptions.

As mentioned on page 2 of this article, the New York firemen with their bomb observations have been compromised by their CIA security consultant who passed a gag order down their ranks. As far as they are quoted below their statements were made in the early days on and right after 9-11-1 before the scissors of government censorship stopped their free stream of truth.

Tens of thousands of other eye witnesses in and out of the buildings think:

“We went bananas over your work, Mr. Loizeaux!”

WE being, without limitation, such survivors, helpers and eyewitnesses as:

- ALPHABETICAL WITNESS LIST -

(Despite good efforts, this list must remain incomplete)

Note: In script form, every hyperlink is preceded by
the characters <http://>

This character sequence was deleted here for easier
reading.

The function of the hyperlinks has been kept.

For Pentagon, see BART, Eric.

Statistics: 141 entries.

ANONYMOUS CAMERAMAN

Who had his camera on a tripod and captured **north
tower trembling in its frame instants before it started
collapsing,**

www.letsroll911.org/articles/controleddemolition.html

ANONYMOUS FIREMAN

„I heard what sounded like **explosions and I think it was
bombs that took down those towers,** it was all so
horrible.”

www.letsroll911.org/articles/controleddemolition.html

(scroll down)

ANONYMOUS FIREMAN

Video testimonial of **pre-collapse explosion** at
911blimp.net/videos.shtml (scroll down)

ANONYMOUS GROUP OF FIREMEN

Video testimonial of **detonators demolishing WTC,**
www.letsroll911.org/articles/controleddemolition.html

ANONYMOUS GUY FROM WTC2 81st FLOOR, reported by Thomas Beller

Another secondary explosion:

„I was almost out. I got down to the lobby, right near
the Border’s book store. **And then there was this
explosion.** I don’t know, I just got thrown to the ground
and all this stuff fell on top of me.“

www.mrbellersneighborhood.com/sec9/theashenguy

ANONYMOUS HELICOPTER CREW

Their **helicopter was rocked by the explosion blast** from
one of the towers,

www.letsroll911.org/articles/controleddemolition.html

ANONYMOUS, via Corky Adams

initial impact, lobby damage, escape

www.cyberspaceorbit.com/wrdtwrsq.htm

BART, Eric

Analyst of the Pentagon crash, using French intelligence

information. His site now is at

eric-bart.net/iwpb/

Slogan: **It was a plane bomb**

Bart has listed over 60 witnesses for the Pentagon crash, see his **hyperlinked Pentagon Witness List** at

eric-bart.net/iwpb/witness.html

BBC Eyewitness

news.bbc.co.uk/1/hi/world/americas/1537469.stm

Quote:

I heard the bomb and saw both buildings crumble like biscuits.

BEARDEN, Thomas E.

Retired Lieutenant Colonel, U.S. Army, former Pentagon nuclear scientist and weapons analyst, leading authority on scalar weapons and scalar electromagnetics, huge web site <http://www.cheniere.org/>, today in his seventies.

Avoids statements about the deceptive weapons used on 9-11-1 such as false planes and bright flares at the end of building collapses.

GROSSMANN uses three precedents described by Bearden as analogies for the pseudo-UA175 UFO that hit WTC2 (south tower) at or around 9:03 a.m. on 9-11-1, namely:

the Soviet scalar hologram missile that shot down a plane over Gander:

<http://www.cheniere.org/books/gravitobiology/dc8.htm>

the downing of the Space Shuttle „Challenger” by a scalar hologram missile:

<http://www.cheniere.org/books/analysis/history.htm#Challenger>

the downing of TWA800 by one or two scalar hologram missiles:

<http://www.cheniere.org/misc/tw800.htm>

Read the graphic accounts of this exotic hightech to better understand what flew into south tower on 9-11 and who controls such weapons (no Arabs but the Pentagon).

The Pentagon in the 1990s caught up and passed Soviet scalar technology according to inside information.

BEHRENS, Janet

www.gerritsenmemories.com/hist_stor/9-11billmckeon.htm

BIRNBAUM, Jeff

Emergency Medical Technician at the World Trade Center,

Report of the collapse of south tower:

„When we got to about 50 ft from the South Tower, we heard the most eerie sound that you would ever hear. A high-pitched noise and a popping noise made everyone stop. We all looked up. At the point, it all let go. The way I see it, it had to be the rivets. The building let go, there was an explosion and the whole top leaned toward us and started coming down.

„I stood there for a second in total awe, and then said, ‘What the F_____?’ I honestly thought it was Hollywood. There were 20 to 30 fire trucks and hundreds of people in the street. Everything was happening in a split second. Then someone in our group yelled, ‘Run!’ The only place I had to go was into the parking garage in the World Financial Center.

september11.cenews.com/ar/electric_broadway_electrical_supplies/

BOLLYN, Christopher

Reporter for American Free Press in Berlin, Germany who compiled many facts about the crater in WTC6, the seismic recordings of underground explosions instants before the twin towers collapsed, and the persisting eyewitness testimony of bombs and explosions, including eyewitness testimony observed six blocks away from the World Trade Center of a strong explosion before one of the twin towers fell.

BOYER, Kevin

www.angelfire.com/al4/k_king/kevin_boyer.html

Quote:

The sprinklers were on and they soaked us as we walked through.

Additional Quote:

We walked a little farther, I recognized the area and realized we were only 1 or 2 blocks from my hotel. We stopped to look at the World Trade Center buildings. All of a sudden a loud noise was heard and everyone started screaming and running. My last sight of Kyle is him

running from the area. I thought there were other bombs going off. Dust and debris was hitting everyone. People were running into each other and trying to get away from the debris. You couldn't see anything. I got behind a concrete planter that was maybe ten feet away. Before I got to the planter the dust and debris was on top of me. There were people jumping on top of me and people running into me.

BUELOW, Dr. Andreas von

Former German cabinet minister, member of parliament and supervisor of the German intelligence agencies. Strong indications of a CIA and other intelligence agency participation in the attacks on 9-11-1. He has written a book about this, bestselling in Germany. One of his book's specialties is taking apart the apparent propaganda lies about „cell phone” and „airphone” calls from the allegedly hijacked planes (where no Arab had boarded).

BURNS, Margie

Journalist, researched Marvin Bush and his company connection with the WTC building security.

Appropriate search at <http://www.google.com/>

BUSH, George Herbert Walker „Daddy”

See **SUSPECTS**

BUSH, Jeb

See **SUSPECTS**

BUSH, Marvin Pierce

A brother of George W. Bush. Marvin Bush was the director of Securacom who was responsible for the World Trade Center building security on 9-11-1. On Thursday before 9-11-1, the bomb sniffing dogs were withdrawn. On the weekend before 9-11-1, unidentified technicians swarmed over the twin towers and „rewired” them. This would have been an ideal time without security to plant bombs for a controlled demolition. Margie Burns has written extensively about Marvin Bush (search on the internet). Securacom was a joint operation of the Bush family and the Al Sabah family of Kuwait. Barbara Bush in a book has confirmed that her son Marvin was standing close-by the World Trade Center on 9-11-1 at the time of the attacks, as if to supervise. A cousin of George and Marvin, Jim Pierce, had an office just where the flying object hit south

tower. He saved his life and the life of his employees by vacating the tower for a business to hold a business meeting in a nearby other building shortly before the attacks.

www.cloakanddagger.ca/media/Grossmann/Four%20Horsemen/066%20Four%20Riders%20of%209-11%20Apocalypse.htm (read part I)

BUZZELI, Pasquale

34 year old structural engineer, north tower, 22nd floor, survived the collapse and was rescued two hours later from the rubble by firemen,

Quote on his experience:

Then, as he reached the 22nd floor, the building shook, stairs started to heave. It sounded to Buzzelli like heavy objects were being dropped right above his head. The sound got louder, closer. He dove into a corner. „I felt the walls next to me crack and buckle on top of me,” he says. Suddenly, he seemed to be in free fall, and the walls seemed to separate and move away from him.

Maybe two hours later, he regained consciousness on a slab of concrete 180 feet below the 22nd floor. (He may be the source of the rumor that someone surfed the collapse and lived.) He was atop a hill of rubble in the midst of an endless field of rubble, smoke, and fire, sitting as if in an armchair, his feet dangling over the edge. His bag was gone. He felt numb. The air was thick with smoke and dust. **He heard explosions.**

www.newyorkmetro.com/nymetro/news/sept11/2003/n_9189/

CACCHIOLI, Louie,

51, a firefighter assigned to engine 47 in Harlem.

We were the first ones in the second tower after the plane struck. I was taking firefighters up in the elevator to the 24th floor to get in position to evacuate workers. On the last trip up a bomb went off. We think there was bombs set in the building. I had just asked another firefighter to stay with me, which was a good thing because we were trapped inside the elevator and he had the tools to get out.

www.prisonplanet.com/louie_cacchioli.html

CARR, Ginny

Businesswoman, possible British accent

<http://www.sonicmemorial.org/> (search window)

CASALIGGI, Joe,

Heard and recorded the whistling approach sound and multiple explosion noises at WTC1 impact

engine 7 fireman,

Transcript:

You have two 110-story office buildings: you don't find a chair, you don't find a telephone, a computer... the biggest piece of a telephone I found was half a keypad, and it was this big (holds up thumb and forefinger).

The buildings collapsed to dust.

<http://st12.startlogic.com/~xenonpup/collapse%20update/Engine-7.htm>

direct link to video:

<http://st12.startlogic.com/~xenonpup/collapse%20update/collapsed%20to%20dust.mpg>

CLARK, Brian

Above-impact escapee, 84th floor WTC2, Executive Vice President, Euro Brokers

Left side of this page shows a stairway with the individual floor numbers of WTC2 and relevant events from Clark's story.

Quote about the fires:

Stanley said to me, „You know, I think those buildings could go down.” I said, „There is no way. Those are steel structures. That's furniture and paper and carpeting and draperies and things like that that are burning.” But I didn't finish the sentence when Tower Two started to slide down.

Quote about the dust:

We stayed for at least half an hour, I suppose. The ash settled. We went out the east side of that building, which was onto New Street. It was like a winter's day, grey sky. I suppose it was a quarter of an inch of dust and ash everywhere, but it looked like freshly fallen fine snow. We walked in amazement down the street.

www.pbs.org/wgbh/nova/wtc/above.html

The PBS („Petroleum Broadcasting Service”) people left out the following important statements by Clark about the **explosions:**

I was totally surprised. I was in a conversation two to three feet away from a gentleman named Bobby Coll. He had told me that after the first plane hit, he had gone down but with the announcement he had come back up

with Kevin York. **There was sort of like a double noise, like a bang, thump. With the second thump everything just fell apart in our room.**

www.freerepublic.com/focus/news/689589/posts

CLINTON, William Jefferson „Bill”

See **SUSPECTS**

COARD, Dariah

Security Officer, World Trade Center.

She has details on how the twin towers were rigged:

Daria Coard, 37, a guard at Tower One, said the security detail had been working 12-hour shifts for the past two weeks because of numerous phone threats. But on Thursday before 9-11, bomb-sniffing dogs were abruptly removed.

www.nynewsday.com/news/local/manhattan/wtc/ny-nyaler122362178sep12,0,7280472,print.story

CORE, Lane Jr.

Escapee, outside, looking back and reporting on

continuing secondary explosions:

There was a massive, black gaping hole in the north side of the WTC 1 around the 94th floor to 104th floor, and a massive section missing, wrapping around the east and north sides of WTC 2 at about the 80th to 90th floors. We were just 20 floors below where that fire was burning, and I thank God we moved when we did. **We still heard the secondary explosions consistently, so I continued to look back at the WTC and noticed that people were jumping out of both towers from above the fire lines!**

weblog.theviewfromthecore.com/2003_09/day_14.html

D'AGOSTINO, Salvatore, and two other NY firemen

Report of hurricane-like winds and huge explosions from the collapsing floors:

SALVATORE D'AGOSTINO, NEW YORK FIRE DEPARTMENT: You could hear the floors pancaking one on top of the other, huge explosions.

LIM: Boom, boom, boom, boom, boom, and faster as they get closer. What I remember the most was the wind. It created almost like a hurricane-type force and actually pushed one of the firemen right by me.

MIKE MELDRUM, NEW YORK FIRE

DEPARTMENT: I was flown down a flight of stairs, a little groggy for a while. I noticed somebody on a half landing just up from me, a few stairs and I thought it

was one of our guys and it was David Lim.

www.cnn.com/TRANSCRIPTS/0209/07/pitn.00.html

DAWSON, Pat

NBC TV reporter

Interviewed NYFD security chief Albert Turi about secondary explosions and bombs on 9-11-1

www.prisonplanet.tv/articles/may2004/050504bombsinwtc.htm

TRANSCRIPT OF DAWSON'S REPORT ON 9-11:

„Shortly after 9 o'clock [...] [Albert Turi the Chief of Safety for the New York Fire Department] received word of the possibility of a secondary device, that is another bomb going off. He tried to get his men out as quickly as he could, but he said there was another explosion which took place, and then an hour after the first hit, the first crash that took place, he said there was another explosion that took place in one of the towers here, so obviously according to his theory he thinks that there were actually devices that were planted in the building. One of the secondary devices he thinks that took place after the initial impact he thinks may have been on the plane that crashed into one of the towers. The second device, he thinks, he speculates, was probably planted in the building.“

www.whatreallyhappened.com/eyewitness.html

DAY, Christopher

lists.econ.utah.edu/pipermail/rad-green/2001-September/000298.html

Quote re WTC1:

Moments later, I heard an enormous roar **and felt the ground shaking**. I looked up to the tower, and saw what looked like an umbrella being opened up--like a starburst at the fireworks. I was directly underneath it, and I could see girders shooting out from the building. I immediately began to run southwest, towards a building that had some sort of opening. I already felt rocks landing on my back and helmet, and there were girders falling right near me. I made it perhaps thirty feet before being knocked off my feet. I went about ten feet through the air, and landed rolling on a set of steps. My helmet was gone, my phone, my stethoscope...

DE GRAND-PRE, Donn

Retired Colonel of the U.S. Army, former Pentagon

weapons dealer, author of three books on 9-11; was interviewed by Alex Jones as to the switching of the planes, their sinking in the Atlantic and shooting down of flight 93, military standdown and other issues, www.prisonplanet.com/022904degrandpre.html with alleged information coming from the Joint Chiefs of Staff.

DELBIANCO, Arti

See PECORARO, Mike

DEWDNEY, Kee

Well-known Canadian mathematician, computer scientist and biologist; analyst of 9-11. He has analyzed the probable switching of planes in mid-flight („Operation Pearl”), the missing wings at the Pentagon (with J. Longspaugh), and has falsified the alleged cell phone calls from hijacked planes („Project Achilles”), physics911.org/net/modules/news/article.php?storyid=2 (Operation Pearl) physics911.org/net/modules/news/article.php?storyid=3 (Missing Wings at Pentagon) physics911.org/net/modules/news/article.php?storyid=6 (cell phone calls)

DiFRANCESCO, Ronald

Hospitalized victim of the bomb blast.
„As he left the building, (Ronald DiFrancesco) saw a fireball rolling toward him. He put his arms in front of his face. He woke up three days later at St. Vincent’s hospital. His arms were burned. Some bones were broken. His lungs were singed. But he was alive – the last person out of the south tower.”
www.letsroll911.org/articles/controlddemolition.html, with link to USA Today, www.usatoday.com/news/sept11/2001/12/19/usat-escape.htm

EAGAN, Michael

<http://www.nytimes.com/2001/12/06/national/portraits/POG-06EGAN.html?ex=1089432000&en=659354cc6049e041&ei=5070>

EAGAR, Dr. Thomas (engineer)

www.pbs.org/wgbh/nova/wtc/collapse.html
Eagar explains that steel highrises are built around redundancy principles and that accordingly the

collapses cannot be explained.

Quote:

If one component breaks, the whole thing will not come crashing down.

(...)

Some people were concerned the building would fall down. The structural engineers knew it wouldn't, because the whole thing had an egg-crate-like construction. Or you can think of it as a net. If you lose one string on a net, yes, the net is weakened but the rest of the net still works.

That's essentially how the World Trade Center absorbed an airplane coming into it. It was somewhat like the way a net absorbs a baseball being thrown against it. If you lose a couple of the columns, that's not the end of the world. It will still stand up.

EVANS, Stephen

BBC TV reporter.

Evans was inside the twin towers at the time of first (8:46 a.m.) impact and reported „two or three similar huge explosions”

news.bbc.co.uk/1/hi/world/americas/1537785.stm (scroll down to the time ”0929 EDT” for video clip).

Evans further reported:

„... then when we were outside, the second explosion happened and then there was a series of explosions.”

www.911dossier.co.uk/hj03.html

FAIRBANKS, Evan

ABC TV cameraman

Took spectacular video shots of WTC2 impact, showing strange non-collisional entry mode of the pseudo-UA175 UFO. He also has given at least one in-depth interview stating his views openly.

www.tvtechnology.com/features/Big-picture/f-fb-vid.shtml (in section „New Media”)

<http://www.thewebfairy.com/> feature page with NY Times article on Evan Fairbanks, cashed in my e-book for download at <http://www.gallerize.com/> „T MINUS 9-11”

www.plaguepuppy.net/public_html/video%20archive/
(videos with WTC2 crash footage [ABC], WTC2 collapse
footage [ABC] and interview)

FARLEY, Matthew

www.law.com/jsp/statearchive.jsp?type=Article&oldid=ZZZ7UHW36TC (functioned as the hub for his law
firm's e-mail emergency correspondence)

FERTIG, Beth

WNYC radio reporter

<http://www.sonicmemorial.org/> (search window)

Covered live the collapse of the twin towers

FIREFIGHTERS MAIN PAGE

Data page of the New York Times from detailed
interviews with firemen (after the CIA censorship, see
JONES and LAVELLO, was implemented),

www.nytimes.com/indexes/2002/07/06/nyregion/nyregionspecial/text/index.html

This includes only the higher levels and not the foot
workers. Regarding Albert Turi, see exemplary
comments on page 2 of this article.

FORBES, Scott

Senior Database Administrator, Fiduciary Trust.

He has details on how the twin towers were rigged:

Did the World Trade Center towers undergo a
deliberate „power-down” on the weekend prior to the
9-11 terrorist attacks? According to Scott Forbes, a
senior database administrator for Fiduciary Trust, Inc.
– a high-net investment bank which was later acquired
by Franklin Templeton – this is precisely what took
place. Forbes, who was hired by Fiduciary in 1999 and
is now stationed at a U.K. branch office, was working
on the weekend of September 8-9, 2001, and said that
his company was given three weeks advance notice
that New York's Port Authority would take out power
in the South Tower from the 48th floor up. The reason:
the Port Authority was performing a cabling upgrade
to increase the WTC's computer bandwidth.

Forbes stated that Fiduciary Trust was one of the
WTC's first occupants after it was erected, and that a
„power-down” had never been initiated prior to this
occasion. He also stated that his company put forth a

huge investment in time and resources to take down their computer systems due to the deliberate power outage. This process, Forbes recalled, began early Saturday morning (September 8th) and continued until mid-Sunday afternoon (September 9th) – approximately 30 hours. As a result of having its electricity cut, the WTC's security cameras were rendered inoperative, as were its I.D. systems, and elevators to the upper floors.

Forbes did stress, though, that there was power to the WTC's lower floors, and that there were plenty of engineers going in-and-out of the WTC who had free access throughout the building due to its security system being knocked out. In an e-mail to journalist John Kaminski, author of *The Day America Died* (Sisyphus Press) and *America's Autopsy Report* (Dandelion Books), Forbes wrote: „Without power there were no security cameras, no security locks on doors, and many, many ‘engineers’ coming in and out of the tower.”

Forbes didn't think much of these occurrences at the time, and said that he worked until Monday morning (September 10th) to get all the computer systems back online. Due to his IT-related duties on Saturday & Sunday, Forbes had Tuesday, September 11th off, and thus watched the World Trade Center towers collapse from his apartment. While doing so, he recalled, „I was convinced immediately that something was happening related to the weekend work.”

In addition, Forbes says there were other peculiarities revolving around this unreported event, including:

1) Fiduciary employees trapped between the 90-97th floors of the South Tower told family members (via cell-phone calls) that they were hearing „**bomb-like explosions**” throughout

the towers.

2) Video cameras positioned atop the World Trade Center which were used to feed daily images to local television stations were inexplicably inoperative that morning.

3) A Fiduciary employee who was on one of the lower floors and escaped immediately after the first (North) tower was struck, reported that he was amazed by the large number of FBI agents that were already on the streets surrounding the WTC complex only minutes after the initial strike.

4) Last but not least, Ann Tatlock, CEO of Fiduciary Trust and now a board member of Franklin Templeton, had just arrived at a conference hosted by Warren Buffet at the Offutt Air Force Base (home of the U.S. Strategic Command Headquarters in Omaha, Nebraska) when the 9-11 attacks took place. Coincidentally, later that day President George W. Bush flew into this very same base on Air Force One for „security reasons.” Even more chilling are the Offutt AFB ties to the CIA’s MK ULTRA experiments, Project Monarch, the Franklin Cover-Up, and the diabolical practices of Michael Aquino. (Type any of these words into a search engine for more information.)

In the end, Forbes says that even though these disclosures could jeopardize his current employment, he has stepped forward because, „I have mailed this information to many people, including the 9/11 Commission, but no one seems to be registering these facts.”

sf.indymedia.org/news/2004/04/1691636_comment.php
Memo: ALSO SEE BUSH, MARVIN

FORSTER, Stacy

www.poynter.org/content/content_view.asp?id=6395&sid=44

Quote:

Someone pointed out a four-footwide airplane tire that had crashed on a corner several blocks south of the Trade Center. It leaned to one side looking as if it had always been there. I ran my fingers over the Goodyear logo on the side and thought how it could have easily crushed someone waiting for the „Walk“ sign.

Note: This tire is pictured in the FEMA report. I discuss it as fake, hand-placed evidence in my book T MINUS 9-11 (at <http://www.gallerize.com/>) due to its fresh and good conservation after the huge explosion fireball. Here, the witness actually could still touch the Goodyear logo, clearly showing that the rubber was never in anything near a hot fire!!

FOURNIER, Ron

Associated Press writer,

Quote re. Pentagon:

The nerve center of the nation's military burst into flames and a portion of one side of the five-sided structure collapsed when the plane struck in midmorning. Secondary explosions were reported in the aftermath of the attack and great billows of smoke drifted skyward toward the Potomac River and the city beyond.

www.firehouse.com/terrorist/11_APdc.html

FRANK, David

americastandstall.org/stories/davidfrank.html

Quote re. WTC1:

As we got into the low 40's the jet fuel got much more intense to the point where I thought we might pass out. People were clearly suffering the intense fumes and others were clearly beginning to panic. Roselle was not doing well panting heavily and we all needed water. Some people began passing small Poland Spring water bottles up to us from the floor below. This was a real relief. Roselle loved it. It cut some of the fuel taste burning our throats. It eased our sense of dehydration and smoke inhalation. Besides, it was wet. I opened the door to the 40's floor and we momentarily stood in the doorway. I looked and saw no one on the floor. Smoke, and the smell of more jet fuel. We kept to the stairway.

FREDERICK, Susan

americastandstall.org/stories/susanfrederick.html

FUERTH, Leon

See **SUSPECTS**

GITLIN, Andrew

See **SUSPECTS**

GOLDING, Steve

www.coping.org/911/memory/golding.htm

Quote:

I saw the second plane coming. It never dawned on me he was going the wrong way. I thought to myself that he was flying too low and wondered why. Then he turned into the second tower. He made his wings go one way and then the other. He went through it. The nose stuck through the other side for a nanosecond before you saw the biggest explosion that you would ever see. You instantly knew you were under attack. This was no accident. This was no dimwit. This was inhuman. You were in total denial. It was not happening. I was home, asleep, and having some sick dream.

Further Quote:

The South Tower, the second one hit, came down. I just stood there for a minute, an hour, a day. My mind was saying get the hell out of there, but my mind wasn't communicating with the rest of me. It was like a movie. A bad one at that. It looked like the whole top of the building slid a little and then someone turned on a faucet and debris started pouring out of it as it slowly disappeared.

Plumes of smoke/debris were coming at me. Huge. Never saw anything like it. I took off. I went down one road and there was that plume coming straight for me, I turned and went another way but it was still coming at me. From all ends. I must've turned down a small alley-like-road where the buildings stood end-to-end because no matter what door I tried to seek shelter, it was locked. The Plume was overtaking me.

There was an older lady screaming in the middle of this

alley/street and the monster was about to get her. I grabbed her and shoved her to the back end of a DHL van that was parked. I threw my suit jacket over her head. „Lady, we’re gonna be alright. Take 3 deep breaths and hold it.“ I curled up by the Van. The debris hit.

It was humid, sticky, hot. It was white-grey-black in less time than it takes to read this line. I was holding my breath but I hadn’t closed my eyes. They felt like fine grade steel wool, 0000 strength were in them. I couldn’t see. I had my hands out but couldn’t see them. I must’ve looked like I was imitating Helen Keller. I couldn’t hold my breath anymore. I let it out and gasped for breath. My mouth was immediately filled with the foulest tasting stuff you couldn’t ever imagine. For the moment I couldn’t breath. I threw up. Cleared my mouth and took another breath. I threw up again and then pulled my shirt over my face and then breathed. I thought I was going to have a heart attack. Or suffocate. For a long while I just leaned there, trying to regain some composure.

I kept blinking my eyes. My vision was blurred but I started to be able to see through the darkness and I felt my way around. The lady was gone. So was my jacket. I laughed. It was a new suit. Oh well. maybe it helped her live. I hope so.

GOULD, Anthony

news.bbc.co.uk/1/hi/uk/1542382.stm

Quote:

He said: „I was sitting in my office on the 95th floor doing my work at about 8.45am when I heard one of my colleagues scream out ‘Look out!’ - the kind of thing you might say if you saw a lorry coming towards you.

„I looked up just in time to see the explosion on tower one, which seemed like it was a few floors below my level.

GRABLE, Rosalee

American video analyst, describes strange pseudo-UA175 UFO entry into south tower, explosions and censorship mechanisms of the media. Pen name: Webfairy

GREENBERG, Maurice Raymond „Hank”

See **SUSPECTS**

GROSSMANN, Stefan

German analyst, describes strange lights of pseudo-UA175 UFO entering into south tower, explosions and censorship mechanisms of the media

- Second field of observation are his personal experiences building his internet publication project Gallerize.com since April 1999 to publish an ultra-corrupt terror cell within the Clinton administration and its apparent links to the inside job of 9-11-1.

- Third observation is correspondence with German company CONVAR who restored over 400 computer hard drives completely from the wreckage of the WTC. Has researched that over about 500 degrees Fahrenheit the computer hard drives would have been non-restorable and that this evidences that there were no raging fire infernos that could have weakened steel, contrary to the government's ludicrous „truss theory”.

- Fourth observation: Oral information from Pratt & Whitney about Carmen TAYLOR photo (see TAYLOR)

- Fifth field: Grossmann has used information from BEARDEN and WOOD and other sources to interpolate the existence of hologram missile technology that functioned such as the pseudo-UA175 UFO functioned that hit south tower without colliding with its steel walls (details in book below and update articles on the radio site, <http://www.cloakandddagger.ca/>).

Author of largest existing 9-11 documentary, „T MINUS 9-11, An Insiders' Attack On America”, download at <http://www.gallerize.com/>, largest single segment free at

www.plaguepuppy.net/public_html/video%20archive/

Pen name: Akanthus (Greek: „Thistle”, but also symbol of the Beautiful in art and Creation)

HALASY, Don

On-site photographer, over-rolled by the warm bomb blast wind.

„As I turned to run, a wall of warm air came barrelling toward me. I tried to outrace it, but it swept me up and literally blew me into the wall of a building. By the time I regained my footing, a hailstorm of debris was falling from the sky.”

www.letsroll911.org/articles/controleddemolition.html,
with link to
fotophile.com/news0009.html

(Notice how the „hailstorm of debris” fell from the sky moments AFTER Halasay was thrown to the ground. This is a crucial detail!)

HANDSCHUH, David

On-site photographer, over-rolled by the warm bomb blast wind.

„Instinctively I lifted the camera up, and something took over that probably saved my life. And that was to run rather than take pictures. I got down to the end of the block and turned the corner when a wave – a hot, solid, black wave of heat threw me down the block. It literally picked me up off my feet, and I wound up about a block away.”

www.letsroll911.org/articles/controleddemolition.html,
with link to
fotophile.com/news0009.html

Comment on the source page:

„What each of these witnesses are describing is known as the ‘shockwave effect’. When an explosion goes off, extremely high temperatures are generated in a small amount of time and space. This abrupt shift in temperature causes the air to push outwards with violent force, seeking to stabilize itself. The result is a blast of hot air radiating in all directions.”

-- In other words, the winds of 9-11!

HATFIELD, Larry

San Francisco Chronicle reporter,

Quote on debris:

Debris from the explosions was filling the air as far away as Brooklyn.

sfgate.com/today/terror.shtml

HENEGHAN, Tom

From Venice, California.

Insider of the Al Gore executive intelligence network, provider of specific oral inside information, including bank information gained with PROMIS software, incriminating the Bush-Clinton crime syndicate for 9-11, <http://www.cloakanddagger.ca/> (check the member’s archives)

HESS, Michael

Corporation counsel of the New York city administration. He was with Berry Jennings at the time the lobby of WTC7 exploded (see JENNINGS, Berry witness account),

www.poconorecord.com/report/wtc/1.htm

HINGSON, Michael

www.truthorfiction.com/rumors/m/michaelhingson.htm

HOFFMAN, Jim

Analyst of the 9-11-1 explosion dust clouds,

physics911.org/net/modules/news/article.php?storyid=12

HOLMGREN, Gerard

Scientific analyst of the Pentagon attack of 9-11,

physics911.org/net/modules/news/article.php?storyid=13

(older versions at <http://www.serendipity.li/>)

HUDON, Jean

Earth Rainbow Network Coordinator, reporter.

A careful news watcher (eyewitness to this news):

„I've been mostly watching the one local NYC station still operating (the other local stations all had their antennas on top of the WTC), and one thing I noticed that has been mentioned by survivors or rescue personnel who have been interviewed is the fact that all of them have mentioned secondary explosions occurring at the bottom level of the Towers after the planes struck. One rescue personnel person actually stated that vans with explosives had been parked in the lower parking level and rigged to go off after the planes struck.”

www.earthrainbownetwork.com/CrisisAmerica4.htm

The local news station was likely WCBS-TV.

HUFSCHMID, Eric

Author of „Time For Painful Questions”,

www.erichufschmid.net/PainfulQuestionsBook.html

JENNINGS, Berry

Age 46 on 9-11-1, Housing authority worker, reported in to the command center on 23rd floor of WTC building 7 on 9-11-1.

Note: WTC building 7 was evacuated at around 9:00 a.m. on 9-11-1 (while the tower 2 occupants were being told to return to their desks),

911research.wtc7.net/wtc/attack/wtc7.html

Thus, Barry Jennings' observation of „another explosion” that devastated the lobby of building was occurred after the 8:46 a.m. initial explosion (impact of the flying object into north wall of north tower) and the evacuation of building 7 around 9:00 a.m.

Berry Jennings was with Michael Hess, the city's corporation counsel, when they felt and heard another explosion. **First calling for help, they scrambled downstairs to the lobby of building 7, or what was left of it. „I looked around, the lobby was gone. It looked like hell,” Jennings said,**

www.poconorecord.com/report/wtc/1.htm

JERRY (Survivor in the Marriott hotel, WTC3)

911digitalarchive.org/stories/details/903

JIMENO, Will

Policeman and bowhunter.

Quote:

When the rescue team reached an area directly in front of Tower Two, Antonio said he'd take over the equipment cart Will had pushed from Building 5.

Turning left into a corridor leading across to Tower One, the men encountered a paramedic who asked if he should join them. „Sarge said no, that he should hook up with some other police or fire team. We were going up alone.“

The team moved ahead. Scant minutes passed.

Suddenly the hallway began to shudder as a terrible deafening roar swept over them. **That's when Will saw the giant fireball explode in the street. That's when Sarge shouted, „Run! Run to the left!“**

Seconds later the team's entire world began to crumble.

It was precisely 9:59 a.m. The Trade Center's South Tower had just collapsed.

www.bowhunter.com/feature_articles/BN_FromTheRubble/

JONES, Alex

Texas radio and TV journalist, published the fact that the New York Fire Department was given a former head of the CIA as a security consultant who passed a gag order down the ranks in order to silence the firemen's observations of bombs and secondary explosions at the World Trade Center on 9-11-1, many fundamental reports

and several videos on 9-11

www.prisonplanet.com/analysis_lavello_050503_bombs.html (article by Randy LAVELLO published by Alex JONES).

<http://www.prisonplanet.com/>

<http://www.infowars.com/>

JONES, Geronimo

Neighborhood resident.

Quote on pre-collapse explosions:

It was a picture perfect day in September. I was watering some plants on my terrace and enjoying the unseasonably warm weather when I heard the sound of a plane flying low. Within seconds I watched in horror as the unthinkable unfolded, right in my backyard!

The shock was overwhelming. My first thoughts was that it was a terrorist attack. This was confirmed by the news reports of Al Qaeda. But one thing the reporters left out was something I witnessed first hand. A very important omission at that!

Seconds before the South Tower crumbled to its doom, I heard/felt a series of explosions. Same with the North Tower. There was no denying it, I could FEEL the vibrations of them like a small earthquake. Yet when I turned on the news none of the other eyewitnesses commented on this.

Indeed, in the days that followed, like many Americans, I remained glued to the news networks to keep myself informed of any developments and confirm what I had witnessed. But despite the numerous eyewitness accounts, there was still no mention of the explosions.

www.letsroll911.org/articles/controlleddemolition.html

JONES, Hemina

Allegedly, the authorities had no idea that the World Trade Center might be attacked by planes. This security persons knows:

Security guard Hermina Jones said officials had recently taken steps to secure the towers against aerial attacks by installing bulletproof windows and fireproof doors in the 22nd-floor computer command center.

<http://www.nynewsday.com/news/local/manhattan/wtc/ny-nyaler122362178sep12,0,7280472,print.story>

KEITH, Steve

www.angelfire.com/al4/k_king/Steve_Keith.html

KIM, Won-Young

Seismologist, for the following statement:

One of the seismologists, Won-Young Kim, told AFP that the Palisades seismographs register daily underground explosions from a quarry 20 miles away. These blasts are caused by 80,000 lbs. of ammonium nitrate and cause local earthquakes between Magnitude 1 and 2. Kim said the 1993 truck-bomb at the WTC did not register on the seismographs because it was „not coupled” to the ground.

www.serendipity.li/wot/bollyn2.htm (article by Christopher BOLLYN)

KING, Jeff

American video analyst, describes strange pseudo-UA175 UFO entry into south tower, explosions and censorship mechanisms of the media. Pen name: Plaguepuppy

KING, Kim

www.angelfire.com/al4/k_king/mystory.html

Quote re. WTC1:

After the plane collided with Tower One, it then exploded. The explosion seemed to have come about 10 seconds after impact. However, things were in slow motion and my mind was now in overdrive. I’m sure the explosion happened right after impact. The explosion was massive it only magnified the rumbling, swaying and shaking of the Tower, things began falling off my desk. It honestly felt like the floor fell at least a foot. I thought the building was collapsing right then and there. Parts of the ceiling were truly falling to the floor. I was still standing at this point and I looked out the window and I saw gigantic white chunks of debris falling to the ground from up above. I didn’t know what it was and my mind couldn’t even register what I was seeing. I was completely in shock and extremely frightened.

[Note: The explosion delay of the second explosion by nine seconds is exactly what is to be heard on the tape by Ginny CARR.]

Further Quote:

Shortly after Tower One was attacked, Tower Two was attacked. Another plane had collided with Tower Two. We felt the impact of the attack on Tower Two in Tower

One. In Tower One, the lights in the stairway started to flicker off and on, the Tower again shuddered, rumbled, and swayed from side to side.

KIRKHAM, Michael

Getronics employee attending a meeting for an INS FOS/HM contract in Federal Building seven blocks away from the World Trade Center on the morning of 9-11-1.

"At around 9:50 AM, Michael and his colleague were only a block and a half a way from the WTC, when there was an ominous rumbling that grew into a roar, shaking the ground 'like a thousand trains.' It took them a moment to realize that the South Tower was starting to fall. They turned on their heels to run for their lives." backroadsofvermont.freesevers.com/stranded.html

KISSINGER, Henry

See **SUSPECTS**

LABRIOLA, John

web.archive.org/web/20021012110725/http://www.magnificentlives.com/john-labriola.htm

LAVELLO, Randy

Author of the article on Robert Woolsey as security consultant to the New York Fire Department passing a gag order against the truth of 9-11-1, published by Alex JONES at www.prisonplanet.com/analysis_lavello_050503_bombs.html

LAY, Thorne

Seismologist at University of California at Santa Cruz, for the following statement:

A „sharp spike of short duration” is how seismologist Thorne Lay of Univ. of California at Santa Cruz told AFP an underground nuclear explosion appears on a seismograph.

www.serendipity.li/wot/bollyn2.htm (article by Christopher BOLLYN)

LERNER-LAM, Arthur

Seismologist at Palisades seismic station that registered the seismic impacts of the initial hits and the collapses of the buildings of the World Trade Center on 9-11-1, for the following statements:

Lerner-Lam told AFP that a 10-fold increase in wave amplitude indicates a 100-fold increase in energy

released. These „short-period surface waves,” reflect „the interaction between the ground and the building foundation,” according to a report from Columbia Earth Institute.

”The seismic effects of the collapses are comparable to the explosions at a gasoline tank farm near Newark on January 7, 1983,” the Palisades Seismology Group reported on Sept. 14, 2001.

Experts cannot explain why the seismic waves peaked before the towers hit the ground. Asked about these spikes seismologist Arthur Lerner-Lam, director of Columbia University’s Center for Hazards and Risk Research told AFP, „This is an element of current research and discussion. It is still being investigated.”
www.serendipity.li/wot/bollyn2.htm (article by Christopher BOLLYN)

LEVINE, Eric

32 years, Morgan Stanley, WTC2, 64th floor.

Felt south tower impact while evacuating, on 51st or 50th floor. Felt like floor was giving away and building was sinking. Pandemonium. Began to smell jet fuel around 25th floor, strong odor, hard to breathe. Breathing unbearable by 15th floor due to smoke entering stairwell.

Quote on multiple explosions:

„It was 11 minutes later, and I had gone down about 7 or 8 flights of stairs, when the second plane hit our building.

„I could hear an explosion and people started flying everywhere. It was like a bad ride on Disneyworld.

„A woman fell against me and I went down a flight of stairs. I could hear more explosions and screaming.”

news.bbc.co.uk/1/hi/in_depth/americas/2001/nyc_out_of_the_ashes/1704397.stm

LIM, David Waymond

http://www.geocities.com/nine_eleven_ark/davidlim.htm

Quote, seen from WTC1:

I made it to the 44th floor skylobby and while I directed people to the stairway, I saw the 2nd plane strike the South Tower. I was knocked off my feet by the concussion. I quickly gathered the remaining people and the firemen, and headed back down the stairs. On

LIM, David

the way we encountered some elderly & physically handicapped persons.

LUND, Brent

See D'AGOSTINO, Salvatore

LUONGO, James

Danish bomb expert, confirmation of recanted Van Romero expert testimony that the collapse of the twin towers was a controlled demolition.

MacWADE, Brendan

Inspector, New York police department,
later head of the clean-up efforts at Fresh Kills,
<http://www.sonicmemorial.org/> (search window)
Live testimonial of tower collapse

news.bbc.co.uk/1/hi/english/static/in_depth/americas/2001/day_of_terror/eyewitness/2.stm

Quote:

Beginning on the 5th floor, water was running down the stairs. The water from the sprinklers was finally getting to us. By this point, there were very few people on the stairs. Many had taken detours.

Further quote:

Out in the plaza between the two towers, there was flaming, metal debris and dozens of dead pigeons. The fountain and sculpture between the two towers was crushed by debris. And everything was covered in dust and paper. This was unlike anything I've ever seen. The heat from the flaming debris was intense. It was blurring the landscape outside.

Note: sounds like Napalm to me!

Further Quote:

We walked to the corner of Fulton and Broadway, and I saw something horrible. I recognized a piece of a jet airliner's front landing gear. It was on the street, underneath what looked like a large pool of blood. There was so much blood on the street.

Note: Plane parts were apparently deliberately placed around the crime scene as fake evidence, such as a likely part of a Pratt & Whitney JT9D turbofan from the non-United Airlines UA 175, fallen from hundred of feet height on the sidewalk without damaging it. Details see in my book T MINUS 9-11

(<http://www.gallerize.com/>). Here the question arises,

where did a single pool of blood come from at such distance from the WTC??

Further Quote:

Everything shook. The Brooklyn Bridge shook.

Note: sounds like a huge earthquake to me.

MAYBLUM, Adam

www.coping.org/911/survivor/price.htm

McCUNE, Marianne

WNYC radio reporter

<http://www.sonicmemorial.org/> (search window)

Covered live the collapse of the twin towers

McMAHON, Jim

www.cbc.ca/news/indepth/usattacked/diary_mcmahon.htm Quote: I wasn't able to finish my thought. Just

then the South Tower, my building, exploded with a deafening boom that rattled me, and sent me reeling. Bright orange flames 10 storeys high shot up and out from the building along with billowing black smoke. It was an explosion so big, that it appeared to cut the tower in two, and the debris from the blown-out floors as well as the top portion that had been cut off appeared to be falling in my direction.

The crowd, which had been quietly watching the fire, now found itself in the path of an exploding skyscraper. There was instant panic. Screams and shrieks of terror rose from the crowd. In unison, everyone turned to run, pushing the person in front of them in a desperate attempt to escape.

McMILLAN, Genelle Guzman

Last survivor to be rescued from the WTC rubble.

Quotation:

McMillan heard a rumble. „A big explosion,“ she now calls it.

„The wall I was facing just opened up, and it threw me on the other side,“ she says.

McMillan looked for Gonzalez.

„I was still holding Rosa's hand,“ McMillan says. „But she pulled away.“

McMillan remembers Gonzalez trying to climb the stairs.

„I got up,“ McMillan says. „And I tried to go behind her. That’s when the rubble just kept coming down.“

She never saw Rosa Gonzalez again.

„Everything just kept coming harder and harder,“ McMillan says. „I just kept my head down. I don’t know how I ended up the way I was. I don’t know how I landed.“

It was complete darkness.

She heard a man’s voice.

„Help. Help. Help,“ she remembers him calling.

Then silence.

Then the building shook again. More debris fell.

„I thought I was really going to go down,“ McMillan recalls. „But I didn’t.“

Then the shaking stopped and the silence began.

„I couldn’t do anything,“ McMillan remembers. „I couldn’t move. I couldn’t get the rubble off. Everything was just heavy. I couldn’t see a thing. There was nothing else for me to do.“

She believes she fell asleep.

McNALLY, Edmund

www.azcentral.com/news/sept11/sept11survivor.html

South tower, 98th floor, Fiduciary Trust, victim.

His widow reports:

But I got another phone call from him. He called me back to tell me that he felt silly because he had just booked a trip to go to Rome. He said, „Liz, you have to cancel that. You have to take care of that.”

At that point, I said, „Ed, you’re getting out of there.” I said the firemen are coming up to get you. I said you are a problem solver. You’re going to get out of there.

That’s when he said to me, „Liz, this was a terrorist attack. I can hear explosions below me.” He said stuff about the data center. That’s why I think he was on the 97th floor, because the data center was on the 97th floor. Then he said the floor was buckled. And he said it was getting really hot and hard to breath.

www.freerepublic.com/focus/news/689589/posts

(scroll down)

MELDRUM, Mike

See D’AGOSTINO, Salvatore

MELVANG, Henrik

Danish video analyst, describes explosions, explosion sounds and censorship mechanisms of the media

www.bombsinsidewtc.dk/ but not

<http://www.terrorize.dk/> (anonymous researcher).

MORELLI, Phillip



Construction worker in the WTC Phillip Morelli (37 years old on 9-11-1) describes being thrown to the ground by two explosions while in the fourth subbasement of the North Tower. The first, which threw him to the ground and seemed to coincide with the plane crash, was followed by a larger blast that again threw him to the ground and this time blew out walls. He then made his way to the South Tower and was in the subbasement there when the second plane hit, again associated with a powerful underground blast. This is one of a series of interviews with WTC survivors done by NY1 News:

ny1.com/pages/RRR/911special_survivors.html

(source:

st12.startlogic.com/~xenonpup/underground/underground_explosions.htm)

Direct link to the Morelli video:

st12.startlogic.com/~xenonpup/underground/RMmorelli00028467_020908_194213hi.rm (downloadable)

Streaming video of the same video at

ny1.com/pages/RRR/911special_survivors.html

MOSKOWITZ, Russell

www.thewtcmemorial.com/voices/russell_fha.php

Quote:

The fateful 44th floor. I have tried to remember what happened here as it proved to be the decision of a lifetime. An announcement came on the PA system for the whole building to hear. Read closely you can hear it as everyone stopped to listen. The door from the stairs opened as people crowded in the hall to hear it. „there is a fire in building 1, please evacuate that building.

Building two is secure, you may return to your desk.“

Did you hear what they said. Those words are with me forever. **YOU MAY RETURN TO YOUR DESK.** Hey that is wonderful. The building is secure. WTC 2 has nothing to worry about, except of course for the fire in WTC 1.

Further Quote:

The 33rd floor. This one provided the worst memories of my life. The scariest time. A time to start praying. A time to ask myself „Am I alive“. The CRASH. I shook, maybe I fell. Others fell. The building had been struck. I did not know that at the time. I felt a shake. A great shake. Then the noise. Like nothing I ever want to hear again. I tried telling people it sounding like 15-20 elevators falling down all landing ten feet from me. That description does not do it justice. Remember I was inside, so I had no idea what it was. What I thought-the other building fell into this one. And I was dead. Maybe not then, but shortly.

NAUDET, Jules & Gideon

French cameramen. They videod the north tower hit, and also damage to the north tower lobby damage. For the lobby damage, see

st12.startlogic.com/~xenonpup/underground/underground

[und explosions.htm](#) (scroll down, with video).

Comment on that page:

”The narrator claims that he ‘later learned’ that there had been an explosion caused by fuel pouring down an elevator shaft, but the lobby shows none of the soot or fuel residue we would expect from such an explosion. Instead we see blown-out windows and a fine dry dust covering the entire lobby, very much the signature of high explosives. Similar damage to the parking garages and subbasements can only be explained by pre-placed explosive charges that were detonated at the moment of the plane’s impact.”

Direct link to the video:

[st12.startlogic.com/~xenonpup/underground/lobby.m
pg](http://st12.startlogic.com/~xenonpup/underground/lobby.mp3)

I remember reading that in WTC1 there was no single elevator shaft that ran from the lobby directly to the 90th floor levels where the flying object hit. You had to transfer to another elevator along the way. I doubt that fuel could have charged through the building like this.

Confirmed by George S. PHOENIX,
<http://www.littlewhitedog.com/content-16.html>

O’NEILL, Helen

Associated Press special correspondent.

She wrote the article mentioning Berry JENNINGS and Michael HESS and the explosion of the WTC building 7 lobby,

www.poconorecord.com/report/wtc/1.htm

OESTREICH, Adam

www.netwert.com/ideapad/sep11_adam.html

OYE, Phil

[edition.cnn.com/2001/US/09/20/vic.personal.account.
cnn/index.html](http://edition.cnn.com/2001/US/09/20/vic.personal.account.cnn/index.html) Quote: Once I learn about what actually happened, I’m amazed that that much smoke filled the ground floor of a 110-story building from anything that could happen at 90 plus stories. But I guess it came down the elevator banks.

PALMER, Chief

A New York fire chief, died in the south tower collapse. Represented by the famous „firemen’s tape” where he mentions only two pockets of fire above the 70th floor in south tower shortly before its collapse. His voice on tape is evidence that there were no raging fire infernos as the

government's ludicrous „truss theory” purports. The government withheld the incriminating tape from the public for over a year.

PECORARO, Mike, & DELBIANCO, Arti

Mike Pecoraro, on 9-11-1, a resident of Long Island, a Stationary Engineer in the World Trade Center (north tower). **Arti Delbianco**, a co-worker of Pecoraro.

Witnesses to at least one underground explosion under the World Trade Center in the morning of 9-11-1. Their story has been covered in a long article in the power engineering and real estate management magazine „Chief Engineer”,

www.chiefengineer.org/article.cfm?seqnum1=1029

Pecoraro worked on that morning in the 6th sub-basement of building 1 (north tower) on refrigeration equipment. This was deep underground in an area surrounded by solid bedrock.

EXCERPTS from the Chief Engineer article:

Deep below the tower, Mike Pecoraro was suddenly interrupted in his grinding task by a shake on his shoulder from his co-worker. „Did you see that?” he was asked. Mike told him that he had seen nothing. „You didn't see the lights flicker?”, his co-worker asked again. „No,” Mike responded, but he knew immediately that if the lights had flickered, it could spell trouble. A power surge or interruption could play havoc with the building's equipment. If all the pumps trip out or pulse meters trip, it could make for a very long day bringing the entire center's equipment back on-line.

Mike told his co-worker to call upstairs to their Assistant Chief Engineer and find out if everything was all right. His co-worker made the call and reported back to Mike that he was told that the Assistant Chief did not know what happened but that the whole building seemed to shake and there was a loud explosion. They had been told to stay where they were and „sit tight” until the Assistant Chief got back to them. By this time, however, the room they were working in began to fill with a white smoke. „We smelled kerosene,” Mike recalled, „I was thinking maybe a car fire was upstairs”, referring to the

parking garage located below grade in the tower but above the deep space where they were working.

The two decided to ascend the stairs to the C level, to a small machine shop where Vito Deleo and David Williams were supposed to be working. When the two arrived at the C level, they found the machine shop gone.

„There was nothing there but rubble, „Mike said. „We’re talking about a 50 ton hydraulic press ? gone!“ The two began yelling for their coworkers, but there was no answer. They saw a perfect line of smoke streaming through the air. „You could stand here,“ he said, „and two inches over you couldn’t breathe. We couldn’t see through the smoke so we started screaming.“ But there was still no answer.

The two made their way to the parking garage, but found that it, too, was gone. „There were no walls, there was rubble on the floor, and you can’t see anything“ he said. They decided to ascend two more levels to the building’s lobby. As they ascended to the B Level, one floor above, they were astonished to see a steel and concrete fire door that weighed about 300 pounds, wrinkled up „like a piece of aluminum foil“ and lying on the floor. „They got us again,“ Mike told his co-worker, referring to the terrorist attack at the center in 1993. Having been through that bombing, Mike recalled seeing similar things happen to the building’s structure. He was convinced a bomb had gone off in the building. Mike walked through the open doorway and found two people lying on the floor. One was a female Carpenter and the other an Elevator Operator. They were both badly burned and injured. Realizing he had to get help, Mike ascended to the Lobby Level where he met Arti DELBIANCO, a member of his work crew. People were now coming down the same stairway from above the lobby and Arti and Mike had to stay where they were to direct people out of the stairway door and into the building’s lobby. If they didn’t, people descending could walk past the lobby door and unwittingly keep descending into the sublevels of the building.

(...)

The smoke in the stairwell was constant and at one point, Mike told Arti that he was going to catch a quick breath of fresh air. He walked out into the main lobby of the building, seeing it for the first time.

„When I walked out into the lobby, it was incredible,“ he recalled. „The whole lobby was soot and black, elevator doors were missing. The marble was missing off some of the walls. 20-foot section of marble, 20 by 10 foot sections of marble, gone from the walls“. The west windows were all gone. They were missing. These are tremendous windows. They were just gone. Broken glass everywhere, the revolving doors were all broken and their glass was gone. Every sprinkler head was going off. I am thinking to myself, how are these sprinkler heads going off? It takes a lot of heat to set off a sprinkler head. It never dawned on me that there was a giant fireball that came through the air of the lobby. I never knew that until later on. The jet fuel actually came down the elevator shaft, blew off all the (elevator) doors and flames rolled through the lobby. That explained all the burnt people and why everything was sooted in the lobby.“

Mike and Arti decided it was time to leave as well. They left the stairwell and reentered the lobby. As they walked to the exit, they heard a roar and the floor began to shake.

„Banging so hard that we fell down on our knees,“ he said. „I’m looking south, at the building, Arti’s looking at me, we locked eyes and he is screaming at the top of his lungs...I can barely hear this guy. He’s screaming, „What the f? is that?“, and I am screaming back at him, that I think it’s another plane“.

In reality, as the two were kneeling in the lobby of 1 World Trade Center, its sister building, 2 World Trade Center, was crashing down upon them. „The building was just bouncing and bouncing, the floor was

bouncing. I figured another plane already hit the building“. Mike related. „I’m looking ahead and I see all the windows, either three story tall windows or four story tall windows, 10 feet wide; shatter. All of them broke at the same time. All the glass flew over my head. I’m looking up, on my knees, with my hands on the floor, and I saw all that glass.

You’re talking glass three inches thick, go right over our heads. I saw that some of the firemen who was standing on the perimeter (mezzanine) was blown right off the top. They just flew over the top. I can’t put a number on it, maybe ten. Bunch of firemen were guarding doors there. They got blown off. Don’t know where they went. I saw pieces of debris as big as cars go right over my head without stopping. Like a line drive right over my head,“ he said, raising his hand to indicate an approximate 4 foot level.

„You couldn’t see anything now. There was dust in the room. My eyes were covered with dust and debris. I got hit in the back of the head with something so hard I fractured my elbow on the floor. Something stuck in the back of my calf and I just got beat all over the left side of my body. Then the building started bouncing even harder. So hard it was lifting me off the floor, bouncing me on the floor“.

(...)

In desperation, Mike grabbed the fireman’s coat, relit his flashlight and began dragging the unconscious fireman out of the building. „He was easy to drag,“ Mike said. „the floor was so slippery“. He moved in the direction he thought was out, but he was wrong. If Mike had turned left, he would have easily exited the lobby. But, blinded by the dust and disoriented from the pounding he had received, he turned right and was forced to travel three-quarters of the distance of the building before finally reaching a door.

Along the way, another fireman came out of the dust and grabbed at Mike. „Who are you?“ he yelled. Mike

told him he was an engineer in the building. The fireman replied: „Good; how do we get the hell out of here?“ Mike replied: „I’m not really sure. I thought this was the way out and now I’m not sure“.

More firemen appeared through the dust, they grabbed the unconscious fireman who Mike was dragging and said „let’s go!“ Slowly moving through the thick cloud, Mike led the fireman through the lobby. „There was piles of stuff on the floor,“ he said. „I don’t know what it was. There were people on the floor we were falling over“. Somehow, Mike managed to lead them to the South Entrance of the tower to a door which led to the Marriott Hotel. Debris blocked all of the doors from the building. The men managed to move through broken windows to the outside. „That’s when we started to hear people hitting the ground,“ Mike said.

PEKROL, William (Bill)

In a meeting in north tower, 72nd floor.

Quote from Pekrol’s survival story:

Bill and two attendees left the meeting after the building swayed and shook and **numerous explosions** set off by the jet fuel. Bill climbed down all 72 floors but when he arrived in the lobby of the Tower, **20 elevators exploded** from the plane’s jet fuel... the noise was horrendous and the tower was beginning to collapse.

news.boisestate.edu/UPDATE/updatearchive/2003/09112003/0911meetbillpekrol.html

Catch: The jet fuel did not exist. The tower was hit by missiles and bombed. Details in my story,

www.cloakanddagger.ca/media/Grossmann/081%209-11%20Tests.htm

It took about an hour to climb down those stairs. All fuel (whatever fuel) got burned in the first 7-10 minutes, as all fire experts say. Pekrol did not see jet fuel but explosions.

PENTAGON WITNESS LIST

See Eric BART

PERKAL, Don

www.mcsweeneys.net/2001/09/19perkal.html

(Pentagon, mentions two explosions that prompted him to start walking)

PETE, Norbert

www.rick.com/archive.html (scroll down for link to streaming audio interview, very descriptive)

PHEONIX, George S., III

www.littlewhitedog.com/content-16.html (information about WTC1 elevator system, no single shaft from top to bottom)

PRAIMNATH, Stanley

Assistant Vice President, Loan Operations, Fuji Bank, WTC2, 81nd floor.

Quote about transparency of the twin towers:

„As I'm standing there retrieving my messages, I'm looking out at the next building, One World Trade, and I saw fire falling through from the roof," Stanley said. „Now, this entire building is surrounded by glass, and you can stand up and from there you can see all the buildings, planes and everything flying at the same altitude."

[jeanne and trev.tripod.com/america/id17.html](http://jeanne_and_trev.tripod.com/america/id17.html)

PRIAL, Dunstan

news.bbc.co.uk/1/hi/world/americas/1537469.stm

Quote:

Associated Press reporter Dunstan Prial said he heard a sucking sound just before the first building collapsed. „Windows shattered. People were screaming and diving for cover. People walked around like ghosts, covered in dirt, weeping and wandering dazed," he said.

RAJAN, Ash

BBC eyewitness

Was near WTC1 at first impact and reported several explosions

news.bbc.co.uk/1/hi/world/americas/1537785.stm

(scroll down to the time "0929 EDT")

REEVES, Brian

34-year-old security guard, was nearly killed while making the rounds in the lobby of 1 World Trade Center on September 11. He started to run after hearing an **explosion that he said sounded like a missile**, but he was knocked down by a fireball that roared down the elevator shaft.

ny1.com/pages/RRR/911special_survivors.html (with streaming video)

Reifenberg, Alan

www.usmc.mil/marinelink/mcn2000.nsf/lookupstoryref/200294171049

RENO, Janet

See **SUSPECTS**

RIVERA, Mercedes

Emergency Medical Technician helping at the WTC.

Her story of explosions everywhere:

All too often the civilians get overlooked when there is a Mass Casualty Incident (MCI). These are often the medical personnel who work for hospitals in a city but are not members of the police, fire, or EMS departments. Many of these people are the EMTs who drive ambulances for the city hospitals. There were many civilian EMTs there that day and some of their stories are in this book. One of these EMTs is Mercedes Rivera.

She was „right across the street from the World Trade Center” (p. 21). She and her partner grabbed their gear and immediately began treating people. „I was seeing debris falling, smoke, chaos, and fear” (p. 21). A captain told Rivera and the other EMTs to enter the World Trade Center. „I just remember the fear, the constant sounds of things falling, and the flying paper and debris.... I saw a burned woman in a sitting position in the lobby, as if she was still typing behind a desk.... She was already dead” (p. 22). They moved over to Seven World Trade. „A big, thunderous, crash that sounded just like an engine. We saw this big cloud ... it turned black ... debris rolling in” (p. 24).

Rivera fell. „I got trampled by everybody.... My partner stepped on me, and then grabbed me by my belt” (p. 24). They had just gotten to safety when they heard „that big, thunderous, crashing sound again.... Purple smoke followed by black. It was like a tornado.... I waited for death.... Explosions everywhere, and then once again, complete silence” (pp. 26-27). Rivera found herself „looking for my co-workers.... Where are Byron and John? ... Tito? ... Jerry? ... Mario? ... Keith? ... Yamel” (p. 27). Later she learned that Yamel Merino was among the dead that day. „We had escaped death three or four times that day” (p. 30). Rivera is one of those who feel the civilian EMTs were overlooked.

From a pdf online book review entitled „Real Heroines” of the book: Susan Hagen and Mary Carouba. Women at Ground Zero: Stories of Courage and Compassion. Indianapolis: Alpha Books, 2002. 330 pp. Photographs. \$22.95 (cloth), ISBN 0-02-864422-0. Reviewed by Noonie Fortin, Retired USAR First Sergeant. Published by H-Minerva (March, 2004)

rmansfie@panynj.gov story at

www.sharedexperience.org/wtc/experienceedit.lasso?VisitorRole=*&CommentGeneral=&Oper=And&Skip=1

Complete story, with fuel running down the elevator shaft and multiple explosions (explained as probably echoes from other buildings – nobody else ever noticed echoes):

Experience: I worked at 1WTC and arrived about 1 minute before the plane hit the first tower. The building seemed to move about 8 feet and swayed back and fourth about 3 times before finally coming to rest. As I stood up I saw flames coming through the ceiling in the coffee room where I was just about to go. We headed down stairwell C in the Northwest corner of the building and as we reached the 76 floor there was a door in the stairwell that was jammed. People began to panic; some continued down the stairs pushing those ahead; many people were screaming out „What’s the hold-up“ „Get moving“ etc. I opened the door at the 77 floor where the explosion from the plane above blasted out the sheetrock of the elevator shaft. The hallway was on fire and filled with smoke. It appeared that we were trapped. An office on that floor was open and the lights and phones worked but more importantly the air was fresh. I shouted out for everyone to quiet down and suggested that we all go into the office for a break and we would find another way out. It seemed like a reasonable suggestion and the only one offer at the time so we all headed into the office.

People immediately headed for the phones to call their loved ones and I was able to call my wife and let her know that I was alright. She didn’t even know that the building was hit. I told her I had to go and went into the hallway with about 3 or 4 other people to look for a new escape route. The only way out was through the hallway that was on fire. When we got to the other side I grabbed

a fire hose and with the help of 2 co-workers doused the flames in the hallway. There was a persistent fire in the elevator shaft apparently fed by jet fuel from above that would not go out. We kept the hose going as a last line of defense in case a fireball came down the shaft and evacuated perhaps 100 people from the offices onto stairwell A. We turned off the hose and joined the procession down the stairs. At that point the fire was above us and building that had withstood the bombing in 1993 was still standing; we felt safe.

I made it to the plaza lobby and was about to go downstairs to the concourse when I heard a loud explosion followed by several small explosions from above. In hindsight these were probably echoes from the surrounding buildings. I look into the eyes of a fireman a few feet away and we didn't say a word but we both had the same thought. This ain't good.

We ran about 100 feet to the west away from the glass doors by the plaza when the dark smoke came over us. I hit the ground and covered my face with the shirt off my back. The sound was like a freight train coming closer and getting louder. Then there was deafening silence and the sound of dust falling like rain. I was amazed that I was alive and I headed back to the stairs leading to the concourse level. I hooked-up with some firemen who were heading south toward a blank wall. I first told them to head left toward the shops but they wanted to go west toward the Hudson River. I said go right and don't stop. I went over a steel beam about 2-3 feet high and wished them good luck as I headed under the footbridge across West Street and then north gasping for air.

ROMAS, Fr. John, Pastor

www.coping.org/911/survivor/flight11.htm

Quote:

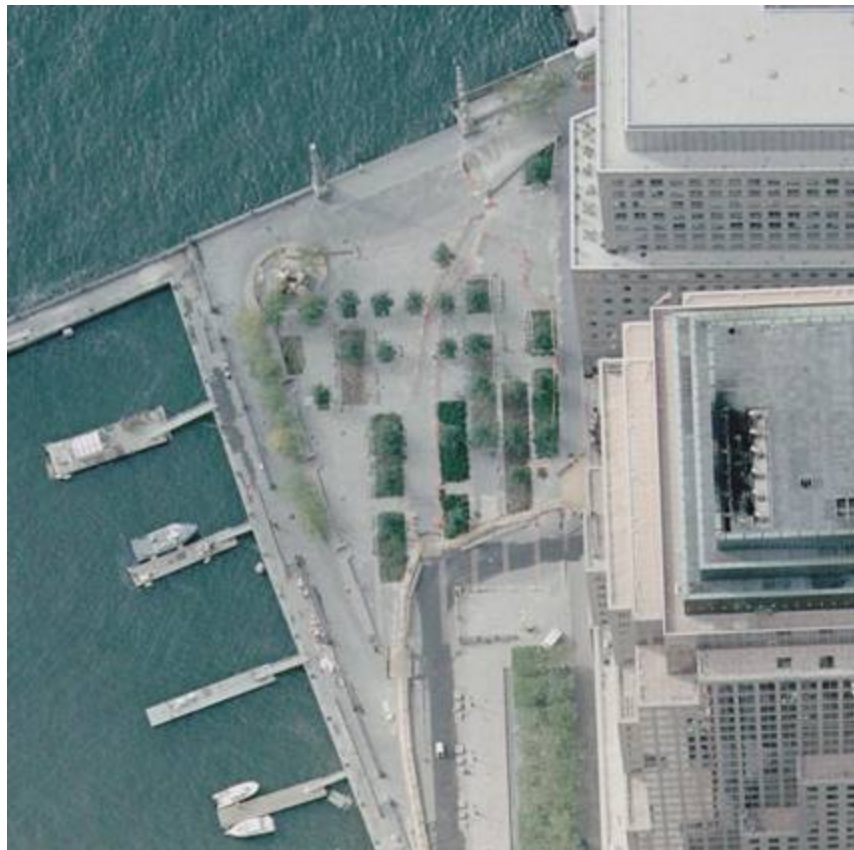
The terrorist attack against the Twin Towers of the World Trade Center that killed an estimated 5,000 [today's number: 3,066 plus hundreds of helpers such as firemen] people also destroyed the tiny St. Nicholas Greek Orthodox Church, located about 500 feet from ground zero.

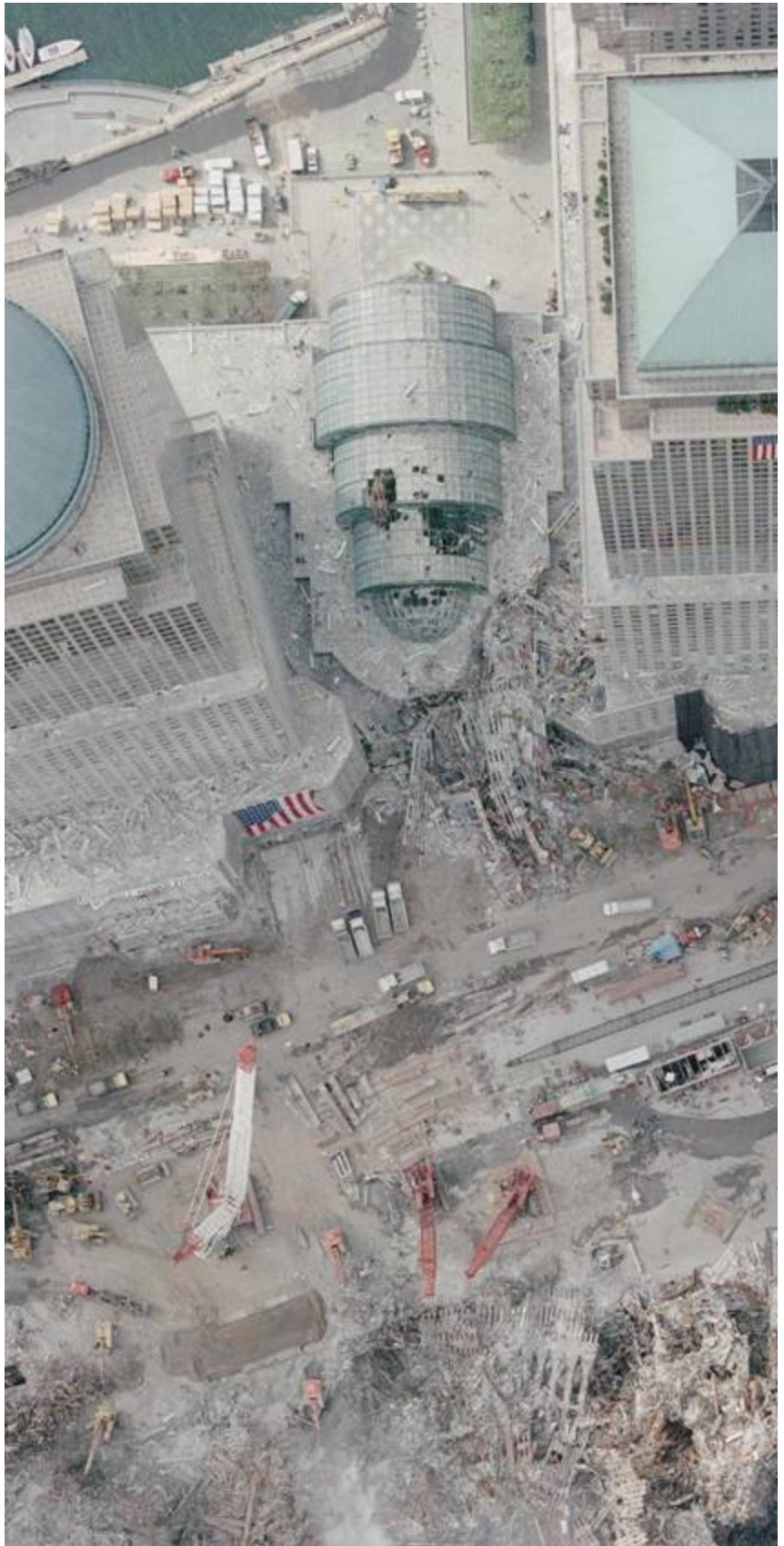
On Tuesday morning, September 11, 2001, Fr. John Romas, pastor, attempted to go to his church but was

turned back by police. Wednesday, he was permitted to visit the site to view what was left of the church. „It would break your heart,“ he said of the devastation he witnessed. „It’s one thing to see it on TV, and another thing to see it in person. St. Nicholas is buried under debris. It is the worst thing.“ He described steel girders and concrete from the towers burying the building. See another descriptive site with photo and link to a map:

www.wirednewyork.com/churches/st_nicholas/default.htm

Note: Compare how fallout from the collapses flew to the World Financial Center, destroying the WFC Winter Garden and leaving a distinct trail of heavy steel spandrels (from a government satellite photo):







Another view (military photo) of how the towers rained all over the place is

www.hq.usace.army.mil/uoc/event/911/images/Aerial%20Shot.jpg

(you can also see very well the deep explosion crater in the top of ruined WTC6 – U.S. customs building that was never hit by a plane but erupted like a volcano seconds after the pseudo-UA175 UFO hit south tower)

ROMERO, Van

New Mexico expert on explosives, terrorism and demolitions, close to the Pentagon. He initially stated that the World Trade Center was destroyed by a controlled demolition. Without convincing argumentative reason, he later withdrew his statement, "Van Romero, an explosives expert and former director of the Energetic Materials Research and Testing Center at New Mexico Tech, said on Sept. 11, 'My opinion is, based on the videotapes, that after the airplanes hit the World Trade Center there were some explosive devices inside the buildings that caused the towers to collapse.' The collapse of the structures resembled the controlled

implosions used to demolish old structures and was 'too methodical to be a chance result of airplanes colliding with the structures,' Romero told The Albuquerque Journal hours after the attack."

www.rense.com/general17/eyewitnessreportspersist.htm (article by Christopher BOLLYN)

Memo: See LUND (confirming Danish bomb expert)

ROSEN, Marvin S. (of Greenberg Traurig, Miami)

See **SUSPECTS**

SABRINA

americastandstill.org/stories/sabrina.html

SALADINO, Ron

edition.cnn.com/2001/COMMUNITY/09/13/saladino.cnn/index.html Quote: About ten blocks north, I stopped to catch my breath and when I turned around, the southern WTC began to collapse like a waterfall. It just fell down in perfect symmetry, one floor, then another floor, then another... and then a puff of smoke like a giant mushroom popped up.

SANTOS, José

911digitalarchive.org/seiu/details/52

SHEIH, Cary

Technical consultant from New York (age 29 on 9-11-1). He was in north tower, 72nd floor, and escaped.

www.truthorfiction.com/rumors/s/survivor8.htm

SILERVERSTEIN, Larry

If unwilling to testify his „pull it” video may be used instead of his testimony. To the effect that WTC building 7 fell in the afternoon of 9-11-1 by controlled demolition with Silverstein's approval. He controlled the investment fund that owned building 7 and was called by the chief of the New York fire department asking for his approval, which he gave in a phone call. This has been documented on TV with personal statements of Silverstein.

www.prisonplanet.com/011904wtc7.html

SLEIGH, George

www.angelfire.com/nd2/911memorial/survivor/Facts.htm

Quote:

George Sleigh, a British-born naval architect, was on the phone in his 91st floor office when he heard the roar of jet engines. Looking out his window, he had time to

think just three things: The wheels are up, the underbelly is white, and „man, that guy is low.“ An American Airlines Boeing 767 was hurtling toward him at 500 mph, loaded with 92 people and 15,000 gallons of jet fuel. The jet exploded into the 93rd through 98th floors of the World Trade Center's north tower with a force equal to 480,000 pounds of TNT. It was 8:46 a.m. on Sept. 11.

The walls, the ceiling and bookshelves crumbled. Sleigh, 63, manager of technical consistency at the American Bureau of Shipping, crawled from the rubble. He looked up at exposed steel beams and the concrete underside of the 92nd floor. He didn't know it at the time, but that concrete floor was the bottom of a tomb for more than 1,300 people. Nobody survived on the floors above him. But on his floor and below, an amazing story unfolded: Nearly everyone lived.

The line between life and death that morning was as straight as a steel beam. Everyone on the 92nd floor died. Everyone on the 91st floor lived. When a second jet hit the south tower 16 1/2 minutes later, the pattern was virtually the same. In each tower, 99% of the occupants below the crash survived. At the impact area and above, survival was limited to just a handful of people in the south tower who made an amazing escape.

(...)

One stairway in the south tower remained open above the crash, but few used it to escape. Stairway A, one of three, was unobstructed from top to bottom. The jet crashed into the 78th through 84th floors of the south tower. A few people escaped from the 78th floor down these stairs. One person went down the stairs from the 81st floor, two from the 84th floor and one from the 91st. Others went up these stairs in search of a helicopter rescue that wasn't possible because of heavy smoke on the rooftop.

SMITH, Dennis (firefighter)

www.coping.org/911/survivor/firefight.htm Quote: I leave the hoses and trucks and walk through the **World Financial Center**. There has been a complete evacuation; I move through the hallways alone. It seems the building has been abandoned for decades, as there are inches of dust on the floors. **The large and beautiful**

atrium with its palm trees is in ruins. Note: The Atrium of the World Financial Center was several hundred feet away from the World Trade Center towards Hudson River.

SPENCER, Leonard

Analyst, wrote among other items an article on WTC1 missiles from his own video analyses,
serendipity.911review.org/wot/aa11.html

STASTINOPOULAS, Dr. Dimitri

see ROMAS, Fr. John

SUJI & MINI, husband & wife

Escaped – how the tower collapsed:
So they escorted us thru the exit of World Trade 2 and I had just reached the revolving door of the building that I heard a loud explosion and the whole building collapsed.
<http://www.truthorfiction.com/rumors/s/survivor3.htm>

SURVIVOR LISTS

There are several survivor lists on the internet, such as
www.shunn.net/okay/reports/

SUSPECTS

Suspects are hostile witnesses. See my top-level analysis at:

www.cloakanddagger.ca/media/Grossmann/Four%20Horsemen/066%20Four%20Riders%20of%209-11%20Apocalypse.htm

I estimate that there are several hundred principals, maybe 10,000 accomplices in the U.S.A. and another 10,000 accomplices in developed countries worldwide. I call the organization the „Beast of Armageddon”.

TAYLOR, Carmen

A bus tourist from Arkansas in Manhattan on the morning of 9-11-1, took some of the most famous snapshots of south tower impact with her digital camera. See her story at
www.swtimes.com/archive/2002/September/08/Insight/PhotoMoment.html

Her pre-impact photo of a look-alike Boeing 767-222 is distributed by Associated Press (AP) worldwide,



We see with high clarity that the two jet engines (which in the alleged Boeing 767-222 registration number N612UA would have been two twin Pratt & Whitney JT9D turbofans) are shining white like two street lamps. GROSSMANN has verified through a phone call with Pratt Whitney (followed up by e-mail information regarding an engine scrap), discussions with technicians and pilots that such jet engines technically cannot shine white. They are always dark. Sun flare is ruled out because the left engine is in the tower's shadow and the back surface of the engines is towards the observer away from the sun. This is compelling additional evidence that the flying object is not alleged hijacked flight UA175 but a pseudo-UA175 UFO.

One can also discern the belly pod and the strange belly markings, analyzed by GROSSMANN at www.cloakanddagger.ca/media/Grossmann/081%209-11%20Tests.htm (part two, questions and answers).

Foundations of this analysis are in: GROSSMANN, T MINUS 9-11, download at <http://www.gallerize.com/>

THOMPSON, William C., Jr., Comptroller, New York City

His report in pdf format online, „One Year Later, The

Fiscal Impact of 9/11 on New York City”.

Page 2, table 2:

Table 2. *Wealth/Infrastructure/Capital Loss from 9/11 Attacks, \$30.5 billion*

Nature and Timing of Impact	Subtotals \$ bil.	Subtotals \$ bil.	TOTAL \$ bil.
I. Lost Wealth/Capital – Total			\$30.5
A. Property Loss/Damage		\$21.8	
1. WTC Towers, Replacement Value	\$6.7		
2. Other Buildings (incl. Retail, Hotel)	\$4.5		
3. Infrastructure: Trains, Phones, Electricity	\$4.3		
4. Tenants' Fixtures, Computers, Furnishings	\$5.2		
5. Private Costs of Cleanup/Victim Assistance	\$1.1		
B. Human Loss: Lost Earnings of Workers		\$8.7	

Source: See text for sources.

Explosion damage outside the World Trade Center was actually larger than the damage at the World Trade Center itself, which underlines the force of the bombs.

Page 4, table 3:

Table 3. *Lost and Damaged Office Space, NYC, Thousands of sf, as of September 23, 2001*

		Lost sf '000 ^a	Damaged sf '000	Total sf '000
1 WTC Tower	“WTC Complex” 13,420 sf ^a	4,761		4,761
2 WTC Tower		4,761		4,761
7 WTC		2,000		2,000
5 WTC		784		784
4 WTC		576		576
6 WTC		538		538
2 World Financial Center			2,591	2,591
3 World Financial Center			2,264	2,264
1 Liberty Plaza			2,121	2,121
4 World Financial Center			2,084	2,084
1 World Financial Center			1,462	1,462
1 Bankers Trust Plaza			1,415	1,415
140 West Street			1,172	1,172
90 Church Street			950	950
195 Broadway			875	875
22 Cortlandt Street			668	668
30 West Broadway			381	381
90 West Street			350	350
130 Cedar Street			135	135
114 Liberty Street			69	69
26 Cortlandt Street			25	25
106 Liberty Street			18	18
110 Liberty Street			6	6
Total		13,420	16,586	30,006

Use this to assess in a semi-quantitative way the huge loads of steel and other debris that were spewed forth by the 9-11 mini-volcano rigged with bombs.

THOMPSON, Yvette

www.drvc.org/youngadult/newsletter.htm

Quote, apparently re. WTC1:

Christine grabbed a phone, called 911, waited on hold, then hung up.

We could hear the sirens of the fire engines instantly after the crash. I looked out the window and saw streams of what I thought was water coming down; I later found out it was jet fuel. I was scared...confused.

Note: What was unburned „jet fuel” doing running down the windows seconds after the huge fireball??

TREVOR, Greg

www.coping.org/911/survivor/race.htm Quote: I was

nearly knocked to the floor by the impact of the first plane, which slammed into the north side of Tower One more than 20 floors above me. **I heard a loud thud,**

followed by an explosion. Additional Quote: All I saw was smoke and sky. One World Trade Center had stayed up for more than 1 hour and 40 minutes after the first attack, enabling thousands of us to escape. We walked the remaining blocks to the mouth of the Holland Tunnel. **Military jets flew overhead.** [Where were they before the towers were hit??]

TULLY, Peter

President of Tully Construction of Flushing, New York, told AFP that he saw pools of „literally molten steel“ at the World Trade Center. Tully was contracted on September 11 to remove the debris from the site.

www.serendipity.li/wot/bollyn2.htm (article by Christopher BOLLYN)

TYSON, Neil deGrasse

THE CLASSIC 9-11 EXPLOSION ACCOUNT BY A HIGHLY OBSERVANT NATURAL SCIENTIST:

An Eye-Witness Account of the World Trade Center Attacks

from Neil deGrasse Tyson

The following is the text from an email Neil deGrasse Tyson sent to his family and friends on 12 September 2001. Neil witnessed the attacks on the twin towers from his apartment only six blocks from the World Trade Center. He is Director of the Hayden Planetarium of the

American Museum of Natural History, which is located in New York City. Neil also serves as The Planetary Society's Vice President. He has given The Planetary Society permission to share his eyewitness account with our members.

From: Neil deGrasse Tyson
Sent: 10AM, Wednesday, 12 September 2001
Subject: The Horror, The Horror

My entire family is safe. We evacuated our lower-Manhattan residence at about noon and migrated north on foot to Grand Central Terminal (about three miles) where we took Metro North to the home of my parents in Westchester, from where I write this message.

We live six blocks from the World Trade Center, in view of both Towers, City Hall, and City Hall Park. I happened to be working at home yesterday. My wife went to work at 8:20AM. I left at the same time to vote in NYC's Mayoral Primary. My 9-month old son was at home with our nanny. My 5-year old daughter was attending her second day of Kindergarten at PS-234, three blocks from World Trade Center. Lineup time in the yard was 8:40AM in full view of WTC 1.

When the first plane hit at 8:50, they evacuated the school without incident. I noticed WTC 1 on fire in a high floor upon returning from voting, about 8:55AM. Large crowds of onlookers were gathering along the base of City Hall Park as countless fire engines, police cars, and ambulances screamed past.

I went home, grabbed my camcorder, went out to the street and started filming. I consider myself to be emotionally strong. What I bore witness to, however, was especially upsetting, with indelible images of horror that will not soon leave my mind.

1) I first see WTC 1 on fire at a high floor. Not just flames coming out of some windows, but four or five entire floors on fire with smoke penetrating floors still higher.

Upsetting enough, but then...

2) Among the papers and melted steel fragments fluttering to the ground, I notice that some debris was falling distinctly differently. These weren't parts of the building that were falling. These were people, jumping from the windows, their bodies tumbling in rapid descent from the eightieth floor. I noticed about ten such falls, morbidly capturing three of them on tape.

Upsetting enough, but then...

3) A fiery explosion burst forth from a corner of WTC 2 about two thirds of the way up, perhaps the 60th floor. The fireball created an intense radiative impulse of heat from which we all had to turn our heads. From my vantage point, I could not see the plane that caused it, which hit 180 degrees on the other side of the building. Nor did I know at the time that a plane caused it. I first thought it was a bomb, but the explosion was not accompanied by the tell-tale acoustic Shockwave that rattles windows. This was simply a low frequency rumble.

As it burst from the building's corner, the fireball was so large that it extended all the way across to WTC 1. The fact the building's corner exploded tells me that the ignited jet fuel got focused by the sides of the floor into which the second plane flew, meeting at the corner with increased explosive pressure. The flames were accompanied by countless thousands of sheets of paper that burst forth, fluttering to the ground as though every filing cabinet on multiple floors was emptied.

The fact that the second tower was now on fire made it clear to us all on the street that the first fire was no accident and that the WTC complex was under terrorist attack. Morbidly, I have the explosion on tape and the sounds from the horrified crowd surrounding me. At this point I stopped filming, and went back inside my apartment.

Upsetting enough, but then...

4) As more and more and more and more and more and more emergency vehicles descended on the World Trade Center, I hear a second explosion in WTC 2, then a loud, low-frequency rumble that precipitates the unthinkable - a collapse of all the floors above the point of explosion. First the top surface, containing the helipad, tips sideways in full view. Then the upper floors fall straight down in a demolition-style implosion, taking all lower floors with it, even those below the point of the explosion. A dense, thick dust cloud rises up in its place, which rapidly pours through the warren of streets that cross lower Manhattan.

I close all our windows and blinds. As the dust cloud engulfs my building, an eerie darkness surrounded us -- the kind of darkness you experience before a severe thunderstorm. I look out the window and can see no more than about 12 inches away.

Upsetting enough, but then...

5) Outside my window, after about 15 minutes, visibility grows to about 100-yards, and I notice about an inch white dust everywhere outside my window. That's when I realize that every single rescue vehicle that had parked itself at the base off the World Trade Center must now be buried under 110 collapsed floors of tangled debris, and multiple feet of dust. This collapse took out the entire first round of rescue efforts including what were surely hundreds of police officers, firefighters, and medics.

As visibility increased and I could now see the blue sky, there was blue sky where WTC 2 used to be.

Upsetting enough, but then...

6) I decide it's time to get my daughter, who was taken by the parents of a friend of hers to a small office building, six blocks farther from the WTC than my apartment. As I dress for survival: boots, flashlight, wet

towels, swimming goggles, bicycle helmet, gloves, I hear another explosion followed by a now all-too familiar rumble that signaled the collapse of WTC 1, the first of the two towers to have been hit. I saw the iconic antenna on this building descend straight down in an implosion twinning the first.

This dust cloud was darker, thicker and faster-moving than the first. When this round of dust reached my apartment, fifteen seconds after collapse, the sky turned dark as night, with visibility of no more than about a centimeter. It was getting harder to breathe in the apartment, but we were stable.

At this point I offer no hope of survival for any of the rescue personnel who were on the scene.

Upsetting enough, but then...

7) The cloud settles once again, now leaving a total of about three inches of dust outside my window. Another dark cloud of smoke now occupies the area where two 110-story buildings once stood. This cloud, however, was not the settling kind. It was smoke from ground-level fires. At this time the air in the apartment is getting harder and harder to breathe and it becomes clear that we should evacuate -- especially with the likelihood of underground gas leaks. I load up my largest backpack with survival items, put my son in our most nimble stroller and leave with our nanny, who then walks across the Brooklyn Bridge toward her home.

I go to where my daughter was held, which was upwind from all debris on a quiet street. She is in good spirits, but clearly upset. I have a crayon drawing of hers, sketched while waiting for me to arrive, which shows the Twin Towers with smoke and fire coming from them, as only a 5-year old could draw. „Daddy, why do you think the pilot drove his plane into the World Trade Center?“ „Daddy, I wish this was all just a dream“ „Daddy, if we can't return home tonight because of all the smoke, will my stuffed animals be okay?“

Upsetting enough, but then...

8) From the calm of an upholstered couch in the office where my daughter was kept, with my son under one arm and my daughter under the other, I realize that, fully loaded, each tower off the WTC holds 10,000 people. From what I witnessed, I have no reason to believe that any of them survived. In fact, I would not be surprised if the death toll reached 25-30,000. Beneath the Towers is an entire universe of six subterraneous levels containing scores of subway platforms, plus a hundred or so shops and restaurants. The Towers simply collapsed into this hole -- a hole large enough to have supplied the landfill for the World Financial Center across the West Side highway from the World Trade Center.

Upsetting enough, but then...

9) I realize that if the death toll is as high as I suspect, this incident is much, much worse than Pearl Harbor, where several thousand people died. It's more spectacularly tragic than the Titanic, the Hindenburg, Oklahoma City, car bombs, and airplane hijackings. The number of deaths in one four-hour period will be nearly half of the American death toll in all of Vietnam. I reconnected with my wife by 4PM, meeting her just north of Union Square Park, before we hiked another mile north to Grand Central Terminal for our ride to Westchester, above New York City. I will never be the same after yesterday, in ways that I cannot foresee. I suppose that my generation now joins the ranks of those who lived through unspeakable horrors and survived to tell about it. How naive I was to believe that the world is fundamentally different from that of our ancestors, whose lives were changed by bearing witness to the 20th century's vilest acts of war.

Peace to you all

Neil deGrasse Tyson
New York City

www.planetary.org/html/society/advisors/sept11account.html

VELIZ, Teresa

Facilities Manager for a software company, 47th floor, WTC1.

Quote on multiple explosions:

Veliz went down a staircase with a coworker to the concourse level. In the mall, they got onto an up-escalator as the South Tower collapsed, causing a rush of wind which knocked them down. In the pitch black, Veliz and her coworker followed someone carrying a flashlight:

„The flashlight led us into Borders bookstore, up an escalator and out to Church Street. There were explosions going off everywhere. I was convinced that there were bombs planted all over the place and someone was sitting at a control panel pushing detonator buttons. I was afraid to go down Church Street toward Broadway, but I had to do it. I ended up on Vesey Street. There was another explosion. And another. I didn't know where to run.”

Source: „Teresa Veliz: A Prayer to Die Quickly and Painlessly,” in September 11: An Oral History by Dean E. Murphy (Doubleday, 2002), pp 9-15.

www.thememoryhole.org/911/veliz-bombs.htm

VICTIM STORIES

related by friends and relatives (small selection)

north tower:

www.legacy.com/nytimes/Sept11.asp?Page=TributeFullText&Memorial=&LastName=Jacobson&City=&State=NoState

south tower:

www.nytimes.com/2002/05/26/nyregion/26STOWER.html?ex=1089432000&en=50b2925672ca0328&ei=5070

WADJA, Richard

news.bbc.co.uk/1/hi/world/americas/1543033.stm

WHITE, Kim

”Kim White, 32, an employee on the 80th floor, also reported hearing an explosion. ‘All of a sudden the building shook, then it started to sway. We didn't know

what was going on,' she told People. 'We got all our people on the floor into the stairwell . . . at that time we all thought it was a fire . . . We got down as far as the 74th floor . . . then there was another explosion.'

www.rense.com/general17/eyewitnessreportspersist.htm (article by Christopher BOLLYN)

WHOLIHAN, John

According to Bollyn, others suspected controlled demolition too: „WTC 7 mysteriously collapsed at 5:25 p.m. on 9-11, in what appears to have been a controlled demolition. John Wholihan, a firefighter with Rescue 5 from Staten Island was near WTC 7 when it collapsed. Wholihan told American Free Press that he heard ‘**many explosions’ just before the building [WTC7] collapsed** neatly within the perimeter of its foundation. Silverstein received some \$441 million in insurance money for WTC 7 although the cause of the collapse remains officially unexplained.”

www.worldaffairsbrief.com/keytopics/september11.shtml

WILLIAMS, Eric

New York city hall reporter

www.sonicmemorial.org (type in his name in search window)

He reported the collapse and tape-recorded the sound of the falling twin towers. – The audio tape recordings of the towers collapsing are apparently classified.

WOOD, Dr. Gary

U.S. army scientist, scientific head of project „Ghost Gun”. This is a secret military project to develop holographic camouflage to deceive enemies. This was described in the Australian press in an article entitled „The Holographic Battleground”,

www.nhne.com/newsbriefs/nhnenb79.html

and

www.cyberspaceorbit.com/phikent/ghstgun.txt

and

www.gallerize.com/media/0.%20Frequently%20Asked%20Questions.pdf (pages 8 and 9)

This information is used by GROSSMANN (in his online book and articles) together with information from BEARDEN (in his online articles) to interpolate the existence of a holographic scalar missile that functions

such as the pseudo-UA175 UFO that hit south tower, namely to look 98% like a real plane but be able to fly through the south tower's steel-column wall like a spook and explode only behind the wall well inside the tower (Evan FAIRBANKS south tower impact video distributed by ABC news). The pseudo-UA175 UFO probably had a hard core consisting of a small real (non-virtual) cruise missile. The belly pod and orange entry flash are circumstantial evidence for this.

Please read the appended article
(May 2004 bomb investigation
by Rodger Herbst) below.

APPENDIX

Below follows a concise additional WTC bomb investigation report by Rodger Herbst (15 pages). The URL where I found this is:

<http://septembereleventh.org/documents/rodgwtpdf.pdf>

Mysteries of the Twin Towers Rodger Herbst; BAAE, ME May 2004

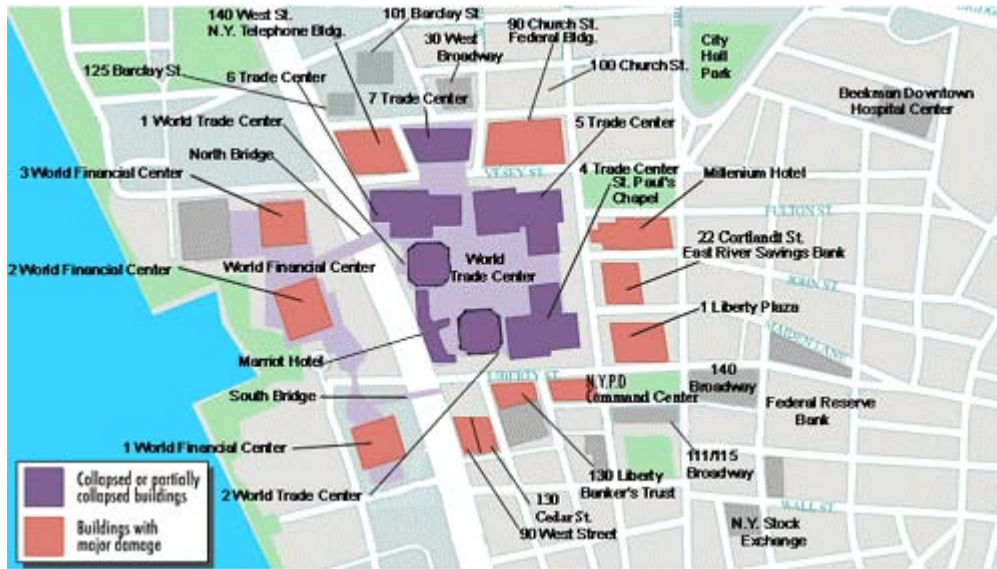


Image Courtesy David McGowan: www.davesweb.cnchost.com/nwsltr43.html

The collapse of 1 and 2 World Trade Center (the twin towers) transformed the attacks of September 11 2001 to a new level of horror and national rage. Information from a number of sources is brought together in the following paragraphs in an attempt to establish what actually happened.

The First Experts Suggested Explosives Were Used

The WTC towers did not collapse because of the airplane impacts alone, because both towers stood for approximately an hour or more after impact. On September 11, 2001, American explosives expert Van Romero said: "My opinion is, based on the videotapes, that after the airplanes hit the World Trade Center there were some explosive devices inside the buildings that caused the towers to collapse." [Albuquerque Journal, 9/11/01] On Sept. 12 , the Danish "Bomb expert" Mr. Bent Lund stated - "an estimated amount of circa 1 tons of Extra high-explosives Bombs must have been detonated inside the World Trade Center complex in order to make the Towers collapse in the manner they did." [Daily (Copenhagen) Newspaper "BT"]. Romero, who was seeking Pentagon research funding at the time of the attack, as well as Lund, soon changed their minds about the cause of the collapse, and politically correct revisionist theories soon blanketed the news media.

Politically Correct Revisionist Theories Fuel Doubts

The first Politically correct theory was that heat from the fires simply melted the structural core, causing the collapse. Yet even if support columns had melted due to burning jet fuel, it is highly unlikely that the resulting structural weakness would be completely symmetrical. Irregularity would have produced a collapse in which concrete and steel girders would have rained down over a wide area, causing additional damage and fatalities. Subsequent revisionist theories with various names thus all attempted to account for the complete symmetrical collapse in terms of weakening of the steel supports and some form of floor by floor chain reaction.

Fire Theory Henry Koffman, director of the Construction Engineering and Management Program at the University of Southern California wrote that intense heat from the fires melted the steel, which caused the collapse of the towers [<http://911research.wtc.net/talks/towers/explanations.html>]

Professor Thomas Eager is professor of Materials Engineering and Engineering Systems at MIT. The Minerals, Metals & Materials Society published his analysis, which concluded that the fire could not possibly have been hot enough to melt steel. The analysis, which notes that steel melts at 1500 deg C., and that jet fuel produces a maximum temperature of 1000 deg C., even when mixed in perfect proportions, parallels the historically verified fact that fire cannot melt steel. [See Eric Hufschmid, Painful Questions: An Analysis of the September 11th Attack Endpoint Software 2002] .

Steel Weakening By Heat

An article by Zdenek P. Bazant of Northwestern University and Yong Zhou appeared in the on-line version of *Journal of Engineering Mechanics ASCE*, with the first version dated 9/13/01 and revisions dated 9/22/01 and 9/28/01 purported to address **why the buildings Collapsed. Bazant and Zhou suppose that the steel in over half of the 287 columns of the crash zone was exposed to sustained temperatures exceeding 800°C. At such temperatures, structural steel exhibits significant viscoplastic deformation, which caused a buckling of columns.**

But how hot was the fire, and how much heat did it produce? Jim Hoffman notes that Corus Construction performed extensive tests subjecting uninsulated steel-frame carparcks to prolonged hydrocarbon-fuled fires. The highest recorded steel temperatures were 360 deg C. [<http://911research.wtc.net/talks/towers/explanations.html>] This is substantiated by Jim McMichael, who wrote that the maximum temperature achieved in fire testing of unprotected steel supports [in the U.K., Japan, the U.S. and Australia] was 360 degrees C (680 F), a long way from the first critical threshold in structural steel, 550 degrees C (1022 F). Heat from the Tower beams was continuously conducted from the heated portions to the cooler portions below, suggesting an even lower maximum temperature. ["Muslims Suspend Laws of Physics,"www.Public-Action.com/911/mcmichael.html]

Charles Clifton is a technical expert in determining the effects of severe fire and earthquake on steel framed buildings. He believed that fire could not possibly have caused the towers to collapse. [Painful Questions] He has noted that regions of fire at 700 deg C would be glowing red hot and visible from outside the building, and that significant window breakage would have occurred. He noted that neither of these conditions occurred in the towers [911strike.com]

Investigative journalist David McGowan notes The Discovery Channel documentary entitled "Collapse: How the Towers Fell" was in many ways misleading. However, the analysis it provided also argues against structural elements reaching high temperatures. It noted that jet fuel, which can burn at temperatures "approaching 2000 deg F." does not burn for very long. "According to the show's experts, fully one-half of [Flight 11's] fuel burned outside of the tower. The remaining half, which ignited inside the tower, burned up in about eight minutes. And that analysis was based on the first crash, into the north tower. As can be clearly seen in video footage, a much higher percentage of the fuel burned outside the South Tower, in the second crash (9:03 am), yet the South Tower fell first (9:59 am) [www.davesweb.cnchost.com/nwsltr43.html]

On Aug. 2, discovery of a "lost" audiotape was reported. This tape is important, because it established that firefighters actually reached the crash zone on the 78th floor of the south tower, and confirms that the crash zone was not a raging inferno, and that the firefighters apparently believed they were in control of the situation. [http://americanfreepress.net/08_09_02/New_York_Firefighters___/new_york_firefighters__.html]

The appearance of several people in the fracture caused by the airplane entry in the North Tower also suggests temperatures were not excessive in the crash zone. [Hufschmid Painful Questions p. 27]

"Fire has never caused a steel building to collapse," writes Eric Hufschmid, quoting Bill Manning of Fire Engineering; "So how did a 56-minute fire bring down a steel building as strong as the South Tower? ... The Meridian Plaza fire in Philadelphia was extreme, but it did not cause the building to collapse. The [fires in the Towers] seem insignificant by comparison".

Truss Theory

Fire Engineering Magazine concluded that a growing number of fire protection engineers have theorized that "the structural damage from the planes and the explosive ignition of jet fuel in themselves were not enough to bring down the towers." These Fire Engineering specialists adopted the notion of a failure of lightweight trusses connecting building perimeter to load-bearing central columns. [New York Daily News, 1/4/02 , Fire Engineering, 1/02] In other words, the failure was lateral rather than verticle.

Although the building's plans were not initially available for investigation, photos of tower construction show that lateral steel floor beams anchored the perimeter to the central columns, enabling the capability to take large lateral loading due to wind. [www.nerdcities.com/guardian/WTC/wtc-demolition.htm]

The towers were designed to survive impact with a 707 commercial aircraft and ensuing fires due to burning fuel. The 707 is comparable in size to the 767 aircraft that struck the towers. The towers were also designed to withstand lateral winds of over of 140 miles per hour.

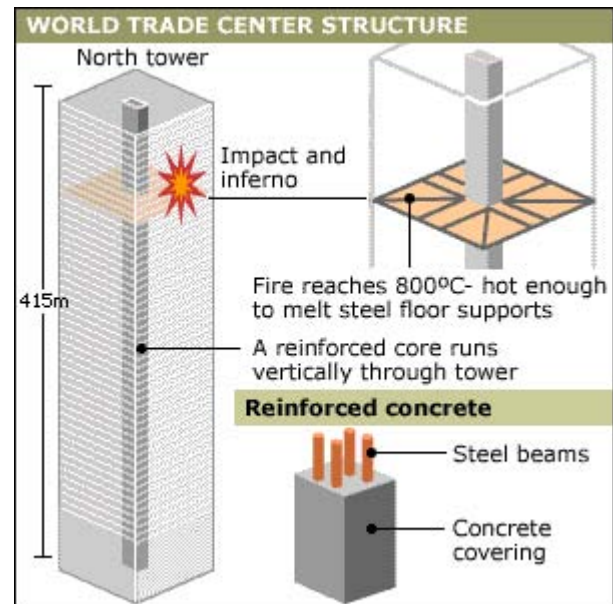
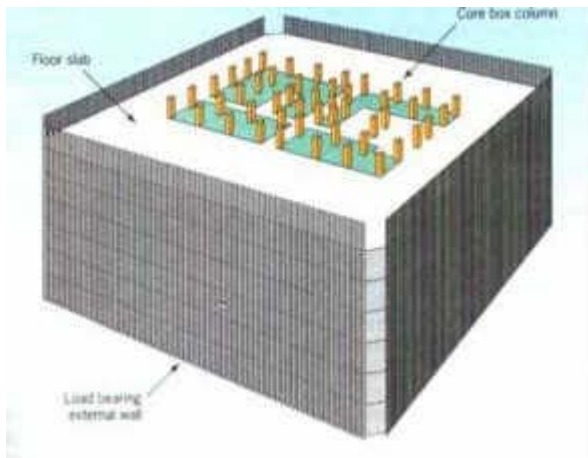


South Tower Impact Courtesy www.serendipity.li
www.serendipity.li/wot/impact2.htm

Pancake Theory

According to Bazant and Zhou, the “chain reaction” resulting in complete floor by floor symmetrical collapse of the North Tower was caused by the acceleration of the mass of the building above the buckled columns downward.

The term “Pancake Theory“, (as well as its variants; Zipper or Domino), arose to help facilitate the credibility of the chain reaction theory. Here the tower floors are likened to weak “pancakes.” David McGowan notes the discrepancy between the standard media graphic portraying the tower structure, and an accurately scaled rendering of the 'footprint' of one of the towers (image on left.)



Images Courtesy David McGowan: www.davesweb.cnchost.com/nwsltr43.html

The structural core occupied a significant portion of each tower's footprint. The floors are not wide-open 'pancakes,' as depicted in graphics distributed by the media (image on the right).

McGowan notes: “the 'pancake theory,' at best, only offers an explanation how the floor and exterior wall sections may have possibly collapsed. Even if such an unlikely event had occurred, the end result would not have been a 60-foot-high mound of rubble, but rather two somewhat narrower, 110-story towers.” [www.davesweb.cnchost.com/nwsltr43.html]

Any chain reaction theory would have to accommodate the fact that each of the towers unraveled completely in less than 15 seconds, which is close to the time of free fall from the top of the buildings if there had been no intervening solid structure. How could a mechanical process proceed through 100 floors with such speed?

A British Perspective

In an article dated 4 October 2001, Professor Wilem Frischmann, of the Pell Frischmann Group and the City University, London, said that the aircraft puncturing of the outer steel shells of the towers would not in itself have caused the towers to fall. Although the explosion caused by the fuel-laden aircraft would have been intense, the lack of available oxygen inside the towers would, according to Professor

Frischmann, have limited the fireball's temperature to less than 1,000 Celsius, within the tower design limits. Architect Bob Halvorson, of Halvorson and Kaye in London said: "There is going to be a debate about whether or not the World Trade Center Towers should have collapsed in the way that they did.... We are operating well beyond realistic experience." [news.bbc.co.uk/1/hi/sci/tech/1579092.stm]

The FEMA Building Performance Assessment

The Federal Emergency Management Agency (FEMA), and the American Society of Civil Engineers (ASCE) assembled a group of volunteer investigators, which was called the Building Performance Assessment Team (BPAT), and supplied \$600,000 in funding. The BPA Team consisted of specialists in tall building design, steel and connection technology, fire and blast engineering, and structural analysis.

On May 1, 2002: FEMA released its report of the WTC collapses, based on the conclusions of that group. The second paragraph of the Executive Summary notes "The structural damage sustained by each tower from the impact, combined with the ensuing fires, resulted in the total collapse of each building". According to the Executive Summary, the team "conducted field observations at the WTC site and steel salvage yards, removed and tested samples of the collapsed structures, viewed hundreds of hours of video and thousands of still photographs, conducted interviews with witnesses and persons involved in the design, construction, and maintenance of each of the affected buildings, reviewed construction documents, and conducted preliminary analyses of the damage to the WTC towers.

Yet the report then concludes "With the information and time available, the sequence of events leading to collapse of each tower could not be definitely determined." [www.house.gov/science/hot/wtc/wtc-report/wtc_Ex_Sm.pdf].

The document continues to waffle as it acknowledges the inability of the heat of burning jet fuel to explain the collapse: "The heat produced by this burning jet fuel does not by itself appear to have been sufficient to cause structural collapse. However, as the burning jet fuel spread across several floors of the building, it ignited much of the buildings' contents (paper, carpet, furniture????) causing simultaneous fires across several floors of both buildings.... Over a period of many minutes, this heat induced additional stresses into the damaged structural frames while simultaneously softening and weakening these frames. This additional loading and the resulting damage were sufficient to induce collapse of both structures."

The report insults the integrity of the original design of the towers, stating "Events of this type, resulting in such substantial damage, are generally not considered in building design, and the ability of these structures to successfully withstand such damage is noteworthy." It also suggests design features such as the type of steel truss floor were responsible, while cautioning us to not think of these design features as deficiencies.

Deepest mystery makes Appendix C

A tiny fraction of the steel beams from the tower debris were inspected. A New York Times article [February 2002] noted that pieces of steel were found that were "apparently melted and vaporized not solely because of the heat of fires, but also because of a corrosive contaminant that was somehow released in the conflagrations." Recommendations in Appendix C of the FEMA WTC report noted: "The severe corrosion and subsequent erosion of samples 1 and 2 constitute an unusual event. No clear explanation for the source of the sulfur has been identified." Materials science professors Ronald R. Biederman and Richard D. Sisson Jr. confirmed the presence of eutectic formations by examining steel samples under optical and scanning electron microscopes. A preliminary report was published in JOM, the journal of the Minerals, Metals & Materials Society. A more detailed analysis comprises Appendix

C of the FEMA report. The New York Times called these findings "perhaps the deepest mystery uncovered in the investigation."

A eutectic compound is a mixture of two or more substances that melts at the lowest temperature of any mixture of its components. Blacksmiths took advantage of this property by welding over fires of sulfur-rich charcoal, which lowers the melting point of iron. In the World Trade Center fire, the presence of oxygen, sulfur and heat caused iron oxide and iron sulfide to form at the surface of structural steel members. This liquid slag corroded through intergranular channels into the body of the metal, causing severe erosion and a loss of structural integrity. The important questions, says Biederman, are how much sulfur do you need, and where did it come from? Did the eutectic mixture form before the buildings collapsed, or later, as the remains smoldered on the ground. 'We have no idea,' admits Sisson. [<http://www.wpi.edu/News/Transformations/2002Spring/steel.html>]

Reaction to the FEMA Assessment

On December 25, 2001 The New York Times reported that some of the nation's leading structural engineers and fire-safety experts believe the investigation into the collapse of the WTC was inadequate, and are calling for a new, independent and better-financed inquiry. Experts critical of the investigation included some who actually took part in it. The team of 20 or so investigators, who conducted their review between October 7-12, had no subpoena power, inadequate financial and staff support, and had been prevented from interviewing witnesses and frequently prevented from examining the disaster site, and had even been unable to obtain basic information such as detailed blueprints of the buildings. [New York Times, 12/25/01] The NY Times account of the team activities contrasts with the account provided in the FEMA Report Executive Summary..

The decision of the City of new York to rapidly recycle the 300,000 tons of steel columns, beams and trusses from the WTC in the days immediately after 9/11 adversely effected the inquiry. Curiously, no forensic examination of the debris was permitted by the "Agency in charge", the FBI.

On January 4, 2002, the Fire Engineering trade magazine, with ties to the New York Fire Department, called the investigation into the collapse of the WTC a "half-baked farce." The article pointed out that the probe has not looked at all aspects of the disaster and has had limited access to documents and other evidence. Bill Manning, editor of the magazine, noting that destruction of evidence is illegal, demanded that the destruction and removal of the steel columns must stop immediately.

Congressman Boehlert, Chairman of the Science Committee of the House of representatives, testified "I must say that the current investigation- some would argue that 'review' is the more appropriate word- seems to be shrouded in excessive secrecy" and "...valuable evidence has been lost irretrievably, and blueprints were unavailable for months."

Professor Glenn P. Corbett, John Jay College of Criminal Justice testified before the Science Committee of the House of Representatives on March 6: "...we are staffing the [investigation] with part-time engineers and scientists on a shoestring budget." [Painful Questions, 2]. Corbett further noted "The steel holds the primary key to understanding the chronology of events and causal factors resulting in the collapse," and recommended an investigative commission on the World Trade Center Disaster

The Science committee itself, in its March 6 2002 report, called for a broader WTC investigation. In a letter to Mr. Mitchell E. Daniels, Jr. Director, Office of Management and Budget, the committee wrote "There was unanimity among the witnesses on the need for a comprehensive assessment and research agenda to address evacuation procedures, emergency response, and structural analysis of the site's buildings." [cryptome.org/wtc-hearing.htm]

Even the New York Times has expressed dismay. On the first anniversary of the attacks, The Times wrote, "the public knows less about the circumstances of 2,801 deaths at the foot of Manhattan in broad daylight than people in 1912 knew within weeks about the Titanic, which sank in the middle of an ocean in the dead of night." [NYT 7/23/02] The situation has not changed significantly.

Explosives Reconsidered

The first experts consulted suggested explosives were used to bring down the towers. Eric Hufschmid, J. M. King, and others have noted that the explosives theory explains very well the apparent removal of all structural support from the lower floors, and the neat demolition like collapse of the towers. [members.aol.com/erichuf/; home.attbi.com/~JMKing; www.serendipity.li/WTC.html]

Senior Special Agent in Charge (Retired) Ted L. Gunderson noted in *An Open Letter to U.S. Attorney General John Ashcroft* "Regarding 9-11 ... I have photographs available proving that the towers were imploded. These photographs are from NBC News' live television video footage (30 frames per second, with each frame numbered and broken down) the morning of September 11, 2001. They are available upon your request. [http://www.patriotamerica.com/TedGunderson/Reports.htm]

The mainstream media generally did not report explosions. Reports continue to surface however, and there is now photographic and even video evidence available which suggest that explosions actually did occur within the Twin Towers prior to their collapse.

Reporting of Explosives

According to Scott Forbes, a senior database administrator for Fiduciary Trust, Inc., with offices in the former WTC, Fiduciary employees trapped between the 90-97th floors of the South Tower told family members (via cell-phone calls) that they were hearing "bomb-like explosions" throughout the towers. Forbes, who had helped prepare the South Tower for an unusual power outage the weekend before 9-11 [discussed under **WTC Security** below] had the day off, and saw the towers collapse on TV.

Kim White, 32, an employee on the 80th floor, reported hearing an explosion. "All of a sudden the building shook, then it started to sway. We didn't know what was going on ... We got down as far as the 74th floor ... then there was another explosion." [www.serendipity.li/wtc.html#evidence_for_explosives]

Teresa Veliz, who escaped from the 47th floor of the North Tower: noted : "The flashlight led us into Borders bookstore, up an escalator and out to Church Street. There were explosions going off everywhere. I was convinced that there were bombs planted all over the place and someone was sitting at a control panel pushing detonator buttons. I was afraid to go down Church Street toward Broadway, but I had to do it. I ended up on Vesey Street. There was another explosion. And another. I didn't know where to run." [September 11: An Oral History, Dean E. Murphy, 2002, pp. 9-15]

On Sept. 11 the British Broadcasting Corp. (BBC) interviewed one of its New York-based reporters, Steve Evans: "I was at the base of the second towerthat was hit," Evans said. "There was an explosion-I didn't think it was an explosion-but the base of the building shook. I felt it shake . . . then when we were outside, the second explosion happened and then there was a series of explosions. . . . We can only wonder at the kind of damage-the kind of human damage-which was caused by those explosions-those series of explosions," he said.

[http://americanfreepress.net/08_09_02/New_York_Firefighters_/new_york_firefighters_.html]

On September 12, 2001, NY News Day reported that officials had recently taken steps to secure the towers against aerial attacks by installing bulletproof windows and fireproof doors in the 22nd-floor

computer command center. "When the fire started, the room was sealed," said [Hermina] Jones, who was in the command center when explosions rocked the building. "Flames were shooting off the walls....We started putting wet towels under the doors. The Fire Department unsealed the door and grabbed us by the hand and said, 'Run!' " [<http://www.nynewsday.com/news/local/manhattan/wtc/ny-nyaler122362178sep12,0,7280472,print.story>]

On March 11 2002, CBS aired a film consisting largely of documentary footage on the firefighters of the FDNY's Engine 7, Ladder 1, all of whom survived the collapse of the towers. The footage was taken by a team of two French brothers, Jules and Gedeon Naudet. To their surprise, the firefighters of engine 7 found widespread damage to the entire lobby area. Over and over, these professional firefighters expressed their complete puzzlement over the damage in this area. As one firefighter put it: As one put it: "The lobby looked like the plane hit the lobby!" Although the narrator claimed that fire officials were "informed... by certain federal officials" that the lobby damage occurred because "burning jet fuel" had poured eighty stories down the elevator shafts and then exploded in the lobby, there was no indication of an incendiary-type explosion or fire in this area. <http://www.thepowerhour.com/postings/911-oddities-revealed.htm> Reference at indymedia website: http://sdimc.org/webcast/front.php3?article_id=912

This event is paralleled by an account given by Peter Wong, who was right under the elevator lobby of WTC 1 between the two ID checkpoints. "I heard the sound of broken glass, smelled burning gas [what kind of gas??], a door blown off about twenty feet in front of me, heat was coming my way. I stepped back and hid myself at the middle elevator of the Blue Cross/Blue Shield section when the strongest wave of explosion passed by with chunks of glass and debris flying around." (09/11 8:48 am: Documenting America's Greatest Tragedy 2001 BookSurg.cam and BlueEar.com.)

Reports of explosions by members of the NYC Fire Department also appear in the American media. In the September 12, 2001 issue of People, Louie Cacchioli tells of his rescue work inside the WTC: "On the last trip up a bomb went off. We think there was bombs set in the building." [People, 9/12/01]In an NBC exclusive: 911 Tapes Tell Horror Of 9/11 (Part 2) June 17, 2002 "Tapes Released For First Time", the quoted dialog references explosions: "Official: Battalion 3 to dispatch, we've just had another explosion. Official: Battalion 3 to dispatch, we've had additional explosion. Dispatcher: Received battalion command. Additional explosion. " [www.wnbc.com/news/1315651/detail.html]

Senior Special Agent in Charge (Retired) Ted L. Gunderson noted in *An Open Letter to U.S. Attorney General John Ashcroft* "Regarding 9-11, I have been told by a credible source that New York City firemen on the 76TH and 84TH floors radioed their commanders and reported that bombs were going off prior to the collapse of the World Trade Center towers. [<http://www.patriotamerica.com/TedGunderson/Reports.htm>]

Photographic, Seismic, video, Fox 5 News, and Technical Data Suggest Explosives

The first event in the collapse of each building was a mushroom cloud of dust above the building.

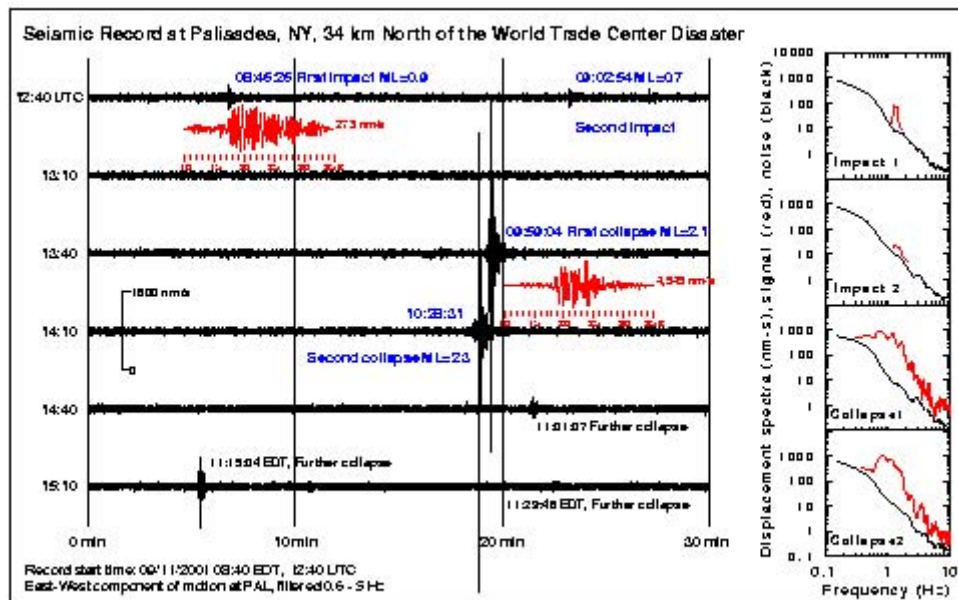
Hufshmid's book shows frames from a video looking up at the South Tower. The frames show the collapse "progressing floor by floor in a nearly perfectly balanced manner". After ribbons of dust blow out of the windows of one floor, they grow into larger dust clouds; meanwhile ribbons of dust blow out of the windows of the next lower floor, and so on.

It has also been noted that the explosions of dust from the windows that span the east face of the tower can equally well be explained as being caused by air being forced from the windows as each of the floors above collapsed. However, Jim Hoffman has calculated the energy required to allow the observed volume of expansion of dust, and found that it exceeds the energy available from gravitational collapse by a factor of 15. [<http://911research.wtc.net/talks/towers/explanations.html>]



Collapse of South Tower Photo 1 and Photo 2 Courtesy www.serendipity.li
www.serendipity.li/wot/collapse.htm

Detailed photos show debris, as well as the dust of pulverized concrete being ejected horizontally at high velocities up to several times the width of the towers during the collapse. According to Hufschmid, and Jim Hoffman, concrete is only pulverized in mid air in this manner by explosives. Danish video expert Henrik Melvang claims his four hour video shows five distinct "DUST CLOUDS" from Demolition Bombs exploding far below the point of airplane impact within the WTC.



Seismic Activity During 9-11 Courtesy www.serendipity.li www.serendipity.li/wtc5.htm

Data was recorded by Seismographs at Columbia University's Lamont-Doherty Earth Observatory in Palisades, New York, 21 miles north of the WTC.

Using the equation $\text{SQRT}\{(distance * 2)/G\} = (Time)$, it takes about 9 seconds for an object to fall from the top of the towers (1300ft) to the ground. Hufschmid notes that the collapse times noted in the Seismic report; 8-10 seconds matches the collapse time derived from video images. This means that if these times are correct, all underlying structure was removed, allowing essentially free fall of the entire structures. Alternatively, Jim Hoffman has estimated it took rubble from the towers' tops about 13-16 seconds to reach the ground, both inside and outside the towers' footprints.

According to American Free Press, while the aircraft crashes caused minimal earth shaking, significant earthquakes with unusual spikes occurred at the beginning of each collapse. The Palisades seismic data recorded a 2.1 magnitude earthquake during the 10-second collapse of the South Tower at 9:59:04 and a 2.3 quake during the 8-second collapse of the North Tower at 10:28:31. Experts apparently cannot explain why the seismic waves peaked before the towers hit the ground. Asked about these spikes seismologist Arthur Lerner-Lam, director of Columbia University's Center for Hazards and Risk Research told AFP, "This is an element of current research and discussion. It is still being investigated." [www.serendipity.li/wot/bollyn2.htm: American Free Press]

Interestingly, the seismic activity at 9:59:04 may be compared with a September 11 2001 Fox 5 News video: A few seconds after 10:00 am, former Colonel Donn De Grand Pre notes, "we see a great white cloud of smoke and dust rising from the base of the [South] tower. The anchor gal exclaims, 'There is an explosion at the base of the building... white smoke from the bottom... something happened at the base of the building... then, another explosion! Another building in the WTC complex ...'" [Barbarians Inside the Gates: Book Two: The Viper's Venom: p 50]

A close up of the Seismic data for the North Tower [Hufschmid Painul Questions pg 73] shows a period of increasing activity, including sharp spikes at 1, 2 and 3 seconds, leading to the 2.3 magnitude pulse at about 5 seconds, followed by a period of decreasing activity. It has already been established that the

collapse began at the top of the towers, and that it took at least 8-10 seconds for the collapsing material to reach ground. This means that the sharp spikes during the first 5 seconds occurred before the collapsing material could reach the ground.

The concept of seismic activity prior to collapsed material reaching the ground is supported by the commentary of Conor O'Clery, who stated on seeing the south tower collapse: "I shifted my eyes upwards to the first tower that had been hit and was still standing, and saw that several more people had appeared in the upper stories where they had smashed windows. The man with the white cloth was still there, hanging precariously by one hand with his body out over the abyss. I wondered why there was no attempt to rescue them by helicopter as part of the roof of the 1350-foot building was clear of smoke. But then the tower began to sway slightly and two people fell in quick succession from the windows as if unable to maintain their grip....Then the [building collapsed]" [09/11 8:48 am: Documenting America's Greatest Tragedy 2001 BookSurg.cam and BlueEar.com.]

The Earth Institute News, posted 11/16/01, carried an article entitled *Damage to Buildings Near World Trade Center Towers Caused by Falling Debris and Air Pressure Wave, Not by Ground Shaking, Columbia Seismologists Report in November 20 issue of Eos*. The article states "While the ground shaking was consistent with the energy released by small earthquakes, it was not sufficient to cause the collapse of or damage to the surrounding buildings, as some have thought. Rather, the buildings around the Twin Towers were impacted both by the kinetic energy of falling debris and by the pressure exerted on the buildings by a dust- and particle- laden **blast** produced by the collapse.[www.serendipity.li/wot/bollyn2.htm: American Free Press]

Aftermath Suggests Explosives

On September 8 2002 Colonel John O'Dowd, of the U.S. Army Corps of Engineers, appeared on The History Channel. O'Dowd, who is no stranger to disaster scenes, had never seen anything like the remains of the twin towers. "At the World Trade Center sites," he said, "it seemed like everything was pulverized." There was nothing recognizable in the debris -- nothing to indicate that that pulverized debris had been, just seconds earlier, a functioning 10,000,000-square-foot office building. O'Dowd had been present at the scene of the partially collapsed Oklahoma City federal building. Though the collapse of the Murrah building was definitely facilitated by one or more powerful explosive charges, the debris from that collapse was not pulverized to the degree that it was at the site of the WTC towers. . [www.davesweb.cnchost.com/nwsltr43.html]

According to an Associate Press article of 1/15/02, Dr. Charles Hirsch, chief medical examiner of the City of New York, triggered an angry response when he told grieving relatives that many bodies had been "vaporized." The goal of his office was to identify at least 2000 of the 2823 victims. Dr. Michael Baden, the state's chief forensic pathologist said that most bodies should be identifiable because the fires ... did not reach the 3,200-degree, 30-minute level necessary to incinerate a body. Dr. Cyril Wecht, a top forensic pathologist in Pittsburgh said the combination of fire and compression from tons of rubble could reduce a human body to a small amount of tissue and bone.

[http://www.fdiai.org/some_world_trade_center_victims_.htm]

After one year, Hirsch's office had identified 1,401 victims, including 45 of those aboard the hijacked planes - 33 from Flight 11, which struck the north tower, and 12 from Flight 175, which hit the south tower.

[<<http://www.nydailynews.com/news/local/story/17949p-17009c.html>>]

After the Oklahoma City bombing, all 168 people killed were eventually identified. And the towers, according to the official story, were acted upon by nothing more than the effects of fire and gravity.

Five days after the collapse, on September 16, the National Aeronautics and Space Administration (NASA) used an Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) to collect thermal data at the WTC site. The data revealed a number of surface thermal hot spots in the region of collapse. Analysis of the data indicated temperatures greater than 800 oF in these hot spots (some over 1300 oF). - U. S. Geological Survey Report <greenwood.cr.usgs.gov/pub/open-file-reports/ofr-01-0429/index.html>

Controlled Demolition Incorporated, the company selected to remove the rubble from the bombing of the Murray building in Oklahoma City, was also selected to cleanup rubble from the WTC. According to Mark Loizeaux, president of CDI of Phoenix, Maryland, "pools of molten steel were found" ... "at the bottoms of the elevator shafts of the main towers, down seven [basement] levels, .. "three, four, and five weeks later, when the rubble was being removed" As has been noted, construction steel has an extremely high melting point of about 2,800° Fahrenheit (1535° Celsius). [www.serendipity.li/wot/bollyn2.htm: American Free Press] Accounts vary as to the duration the steel was in molten form. The key question is how does a small amount of jet fuel at the top of the towers, with a maximum temperature of 1000 deg C, result in molten steel at 1500 deg C. in the basement?

CDI advertises its ability to demolish steel columns into pieces matching the lifting capacity of available equipment. Interestingly much of the WCT steel rubble could be stacked conveniently on standard flatbed trailers. [Hufschmid]

Supression of Reports of Explosives ?

According to the New York Times, New York City Mayor Bloomberg failed to conduct an investigation into the WTC attack response, yet the City of New York has continued to hold hundreds of documents and audio tapes recording the response of emergency services to the September 11 attacks on the WTC, which it says should never be released to the general public. [NYT 7/23/02]

In response to a petition by the NY Times, which has been trying to get copies of these materials, New York State Supreme Court Justice Richard Braun ruled in February 2003 that the city had not provided sufficient reason for withholding these documents. The City of NY initially appealed this ruling. [AP February 6 2003] A "compromise" was apparently reached: In the final ruling, portions of the oral histories and tapes containing the opinions and recommendations of the interviewees and dispatchers will be redacted, "since such opinions and recommendations are to be distinguished from factual material." Apparently New York City does not trust the opinions of those it entrusted with the safety of its citizens. The press will get only expressions of personal feelings. On November 20 2003, the federal commission investigating the Sept. 11 terrorist attacks announced that four months after its initial request for the materials, it had issued a subpoena . [NYT 11/21/03]. After strenuously objecting, the City of New York finally relented, with the agreement that redacted versions of the tapes could be made, but the originals must remain in the custody of New York City.

Interestingly, access to the original "lost" audiotape of firefighters on the 78th floor, referenced earlier, was severely restricted by the Justice Department. The relatives of the 16 firefighters whose voices were identified on the tape were allowed to hear their last words, but were first required to sign a statement prepared by lawyers that they would not disclose what was said on the tape. [http://americanfreepress.net/08_09_02/New_York_Firefighters_/new_york_firefighters_.html]

The decision to allow "redacted" versions to be released could be appealed to the New York Court of Appeals, but the New York Times has not indicated any plan to appeal. [http://www.courts.state.ny.us/reporter/3dseries/2004/2004_00091.htm]

The Collapse of WTC #7

WTC7 has received a lot of attention because of its inexplicable collapse at 5:20 PM on September 11. WTC7 purportedly burned for hours before collapsing, but the source of the fire remains a mystery, as does the complete failure of the building's modern fire-protection systems.

Another interesting fact is that the entire twenty-third floor of WTC7 was a state-of-the-art command center, reportedly set up by Mayor Giuliani. That floor was designed to serve as a base of operations during times of crisis. It was reinforced to withstand winds of 160 miles per hour, and had an independent air and water supply.

On September 11, 2001, the command center was monitoring the situation in lower Manhattan -- until personnel there received an order to evacuate. One official told the filmmakers: "to this day, we don't know who gave that order." [www.davesweb.cncost.com/nwsltr43.html]

In a PBS documentary "America Rebuilds" Larry Silverstein admitted that WTC 7 was "pulled," that is, intentionally demolished: "I remember getting a call from the, er, fire department commander, telling me that they were not sure they were gonna be able to contain the fire, and I said, 'We've had such terrible loss of life, maybe the smartest thing to do is pull it. And they made that decision to pull and we watched the building collapse.'" [<http://www.pbs.org/americarebuilds/>]

This explanation undermines the FEMA assessment: "The specifics of the fires in WTC 7 and how they caused the building to collapse remain unknown at this time."

The Silverstein "Study"

Only three months before the attack, Silverstein Properties and Westfield America signed a rental contract for the WTC, agreeing to pay a total of 3.2 billion Dollars in leasing installments over 99 years to the Port Authorities [Die Welt, Berlin, Oct 11, 2001] According to The Financial Times Ltd., terms of the lease allowed the new owners to walk away from their investment in the event of "an act of terrorism." [www.interesting-people.org/archives/interesting-people/200109/msg00162.html] Despite not being the owner of the buildings, Silverstein demanded to be the sole beneficiary of the insurance indemnity payments of more than 7 billion Dollars. Steve Solomon, his spokesman said. ... The Port Authorities agreed with Silverstein's demand." --[Die Welt, Berlin, Oct 10, 2001.]

Interestingly, a team of engineers from several firms working for Silverstein Properties Inc. offered their own high tech analysis of the cause of collapse, based on the notion of column failure, not floor trusses. Two WTC, though hit by the second hijacked plane after One WTC, fell first "primarily" because the plane struck it at an off-center angle and caused damage that compromised the corner of the core of the building, concludes the report's authors, the New York City-based leaseholder of the World Trade Center. [mcgraw construction] The study fails to mention that researchers have noted that corner of the building virtually disappeared, or rather disintegrated, in a cloud of smoke. [Hufschmid, Hoffman, McGowan]

WTC Security

According to a September 12 2001 report by NY News Day, a WTC security detail had been working 12-hour shifts prior to 9-11 because of numerous phone threats. But on the Thursday before, "bomb-sniffing dogs were abruptly removed". [<http://www.nynewsday.com/news/local/manhattan/wtc/ny-nyaler122362178sep12,0,7280472,print.story>] Several internet sources reference the unfortunate demise of the bomb sniffing dog Sirius who was allegedly killed when the towers collapsed. [<http://www.dogspeak.ca/WTC Dogs.htm>] Interestingly, one of the sources claims Sirius' ashes were recovered from the trade center wreckage, and placed in an urn for his Port Authority police officer master David Lim. [<http://www.signal8-2.com/paula.htm>] [www.signal8-2](http://www.signal8-2.com) is sponsored by Port

Authority of NY and NJ Police.

Victor Thorn of Wing TV has reported the WTC 9-11 security concerns of Scott Forbes, a senior database administrator for Fiduciary Trust, Inc., with offices in the former WTC. His company was notified three weeks in advance that New York's Port Authority would take out power in the South Tower from the 48th floor up on the weekend prior to 9-11, ostensibly to implement a computer cabling upgrade. Forbes noted that Fiduciary Trust was one of the WTC's first occupants after it was erected, and that a "power-down" had never been initiated prior to this occasion. Forbes recalled the power was out approximately 30 hours between early Saturday morning (September 8th) and mid-Sunday afternoon (September 9th). As a result of the power outage, the WTC's security cameras, ID systems, and elevators to the upper floors were rendered inoperative. Forbes noted that many "engineers" going in-and-out of the WTC had free access throughout the building due to its inoperative security system. Forbes also noted other security related anomalies: Video cameras positioned atop the World Trade Center which were used to feed daily images to local television stations were inexplicably inoperative that morning. Also, a Fiduciary employee who was on one of the lower floors and escaped immediately after the first (North) tower was struck, reported that he was amazed by the large number of FBI agents that were already on the streets surrounding the WTC complex only minutes after the initial strike. Forbes says that even though these disclosures could jeopardize his current employment, he has stepped forward because, "I have mailed this information to many people, including the 9/11 Commission, but no one seems to be registering these facts." [<http://69.28.73.17/thornarticles/powerdown.html>] Did a similar power outage occur in the North Tower?

Ontrack/Convar, the German company that was trying to recover data from WTC hard drives in order to determine who was responsible for last minute financial transactions on 9/11, was purchased after the fact by none other than Kroll Inc. (Kroll O'gara Eisenhardt) in June 2002. Kroll is a huge, multi-national security firm which has strong ties to US intelligence. Coincidentally, one of their upper echelon, Jerome Hauer, was responsible for brokering the position of head of security for ex-FBI whistleblower John O'Neill in the WTC. Mr. O'Neill died in the 9/11 attacks. [<http://www.rumormillnews.com/cgi-bin/forum.cgi?noframes;read=45822>]

A business entity now known as Stratesec, Inc. began performing security work at the Center in 1993. In 1996, Stratesec, then known as Securacom, was awarded an exclusive contract to provide security for the World Trade Center complex. Stratesec/Securacom also provided security for United Airlines and Dulles International Airport. Sitting on Stratesec's board of directors, from the time the company began working at the WTC, was a major shareholder by the name of Marvin Bush. Marvin, like Jeb and Neil, is a brother of George W. Bush. [www.davesweb.cnchost.com/nwsltr43.html]

Gathering the Loose Ends

Building professionals were unsatisfied with the original building assessment and have recommended an investigative commission into the WTC collapses. The Science Committee of the House of Representatives itself called for a broader WTC investigation. A number of new issues could be addressed:

How could any mechanical process (causing a floor by floor chain reaction collapse) proceed through 100 floors with enough speed to roughly coincide in time to building free fall?

Numerous instances are documented of the reporting of explosives by people immediately present, who lived to tell of their experiences. These reported explosions, however, were prior to the collapses. What was the source of these prior explosions? One possibility might be disrupted utilities, such as natural gas mains or electrical circuits. But why were there so many, so far below airplane impact?

What caused the seismic events occurring prior and during the collapse of the buildings, but before any debris hit the ground, as witnessed by both bystanders and seismic instrumentation? How does a small amount of jet fuel at the top of the towers, with a maximum temperature of 1000 deg C., but probably much lower, result in molten steel at 1500 deg C. in the WTC basement?

Why would the City of New York label reports of emergency responders "opinions" as untrue, across the board, and refuse to release these opinions to the public? What are these "opinions" NY City wants to keep hidden? Why were the relatives of 16 firefighters identified on the "lost" tape be required to sign a statement of non-disclosure before being allowed to hear it?

Where did the sulfur come from in the eutectic mixture that allowed the steel to melt at lower temperature than usual?

Some evidence still survives. Dr. W. Gene Corley, who headed the FEMA-sponsored engineering assessment of the WTC collapse, noted that 80 pieces of steel were saved.

[www.serendipity.li/wot/bollyn2.htm: American Free Press] Dr. Abolhassan Astaneh-Asl Professor Department of Civil and Environmental Engineering University of California, Berkeley testified "I have identified and saved some components of the structures that appear to have been subjected to intense fire or impact of fast moving objects. " [cryptome.org/wtc-hearing.htm]

www.serendipity.li/WTC.html notes that steel which is subjected to explosion exhibits a characteristic which metallurgists call "twinning". Presumably the surviving fragments of the supporting steel columns of the Twin Towers could still be tested for twinning.

Thanks to Eric Hufschmid, Dave McGowan, and the webmaster of serendipity.li for permission to reproduce images.

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[911-OPERAATIOT YHTEENVETO](#)

[Pommit WTC tornissa](#)

[Pommiteknologian kehitys liittyen 911-operaatioihin](#)

[Minivetypommiin viittaavat havainnot](#)

[Sotilasasiantuntijan näkemys: miksi World Trade Centerin tornit sortuivat](#)

Writings of a Finnish military expert

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Writings of a Finnish military expert

911- OPERATIONS: A SUMMARY

Operations consisted of at least the following

Air defence (NORAD) military excersises (war games) with pursuits of 22 imaginarily hijacked planes just on 9-11-2001, before and simultaneously with the “real” hijackings. Some of the defense interceptors flew to Alaska, as far as possible away from the cities that were being attacked.

The “hijackings” of four civil aircraft and substitution of planes to remote controlled ones (at the parts where real flights were used). It is certain that an operation this complex and heavy in demolitions’ preparations is not left to be handled by arabs with carpeting knives. Plissken-Valentine or Pearl are well assumed estimations on how the aircraft operations were performed. Since the part of airplanes was critical to the real aims of the operation there must have been a couple of reserve planes for USAF Boeing 767s and Global Hawk. Or perhaps the shot-down airliner Boeing 757 in Pennsylvania was a remote controlled reserve plane like this.

The reservation situation of certain planes was kept artificially low, when coast to coast flights were booked for 20% instead of the usual 75% to minimize deaths that could cause problems. If the flights were real then passengers on them had to die (or at least to disappear). Two of the flights probably were just fictious ones, only visible on radar screen, which minimized the amount of passengers to be murdered.

There was use of put options with airline stocks and with the re-assurance companies related (American Airlines, United Airlines, Allianz, Munchener Re, Schweizer Re, AXA...).

Even the assurance values of WTC-buildings were doubled in July 2001. The camouflaging of six remote controlled aircraft to appear like a Boeing 767 or 757 airliner. Planes probably were 2x USAF 767 tankers, a Global Hawk in Pentagon and a "real" 757 in Pennsylvania.

False tracks were created for "terrorists" using young muslim looking persons, who took aviation classes in Southern USA and were partying in night clubs.

The demolition preparations of a Pentagon wing, that was under reparation. This was supposed to collapse a horseshoe shaped area of the building, resembling a destruction which could have been caused by a real Boeing 757 after the fake Global Hawk attack. This partly failed. Photographic evidence exists of an attack by a very small plane before the wing of the Pentagon really collapsed. And the structures collapsed only after the firemen sprayed lots of water on the ceiling of the building.

The demolition preparations of the WTC-towers and the WTC-7 so that it is possible to make them completely to collapse. Even positioning electronic homing device into towers and into Pentagon to ensure the accurate hit of the remote controlled aircraft and extra napalm-efforts for dramatizing the effects of airliner hits. The WTC-buildings could have been exploded down to earth in same way even completely without the airplanes.

Ordering, preparing and transportation of WTC-charges. Solely for the steel pillars of outer circle 40 x 240 charges were needed, let's say 10 000 cutting charges weighting each 50 lbs for each tower. For the WTC-7 at least 4000 charges was needed. Additionally, at least one mini thermonuclear bomb for each of these three buildings.

The locating of critical targets for the conspiracy in WTC-towers. For an example, WTC-1 in FBI's floors 22-24 was held a lot of evidence of world wide economical crimes (it is said one was the case against Mobil Oil and James Giffen on illegal oil swaps between Iran and Kazakhstan and another was the evidence in the investigation of gold price fixing stemming from charges brought against Alan Greenspan, Morgan & Company and Goldman Sachs). It is possible that some targets were attacked because of the unique opportunity exploitable where bodies and all evidence of crimes automatically would disappear when hydrogen bomb explodes. Explosions heard from towers before commencing of "collapse" may have

been related to these attacks. There is a reason for the huge explosion in the customs building, too.

THE DEMOLITION OPERATION OF THE WTC-TOWERS

1) One must define cutting charges of right size and dimensions, and then order 24 000 pieces. One must as well order detonators fitting (detonators are needed a lot more). Fitting detonators usually already exist in stores of army (or CIA). Time to delivery is anyway several months. All detonators must be equipped with some kind of safety mechanism, that will be removed by a radio signal at the final moment.

2) Then the cutting charges are installed in the selected rooms not in use. Some of these rooms may as well serve as temporary storages for charges needed elsewhere. After this the flat is renovated and circulated to clients. One man assembles continuously maybe 5 cutting charges in hour. With 10 assemblers 350 charges are installed in a day. As surplus transportations of supplies, renovators and guards are needed, maybe about 20 people more (5 of them know what is going on, 15 do not). For installation of charges this operation needs at least four months with 30 men. Considering the step 1), maybe six months are needed. Personnel can not be increased, but probably diminished, if more time would be available.

3) No one had access to some of the chosen apartments, that is why on weekend 8. – 9.9.2001 it is announced, that floors up from 40 are equipped with cables and no normal employee has access to their working area. The installations of explosives are completed and at the same time at least in charged areas listening devices are set to found out a possible premature discovery. If someone finds charges the guards are soon at place and will deal the situation in one way or another.

4) One completes the area of secret service in WTC-7 so that the demolition operation can be carried out from there. A military flight beacon is placed there (planes are homing to it far away). Remote controls for air planes and radio transmitters to be able to blow up at

least one third of the cutting charges are placed. From this location probably already exists the ability to eavesdrop any area of WTC, for an example by a laserbeam, aimed to a selected window.

5) A radio beacon helping the final approach is placed in targeted apartments in WTC-towers. Close to these remote controlled napalm explosives are placed as well, in order to draw the interest from planes to fires. The higher in towers the planes are targeted, the less there will be deaths (real terrorists would do exactly the opposite). Evacuation from lower floors should be possible through the staircases. The target is to create a new reason for odd wars and fascistic laws, not to kill many Americans. "A new Pearl Harbor", meaning the death of about 3000 citizens is probably the expected loss of lives.

6) The attack plans are made, so that they can be executed during the khaos, for an example into the offices of FBI economy crime investigations (the attackers had already their own men infiltrated in these facilities.) Even in WTC-6 (customs) either a mini nuke or a very strong bomb is blown out (which one, depends on either there was or not melted steel ponds in the cellar of WTC-6. An explosion, of course, hides the loss of any supplies (and a nuclear explosion, murders, as well.)

7) In the morning of 9-11 the operations are performed by a timetable counting seconds. From the command post facilities the actions in towers are monitored. To hide the true nature of operation, there was probably an agent on call in both towers, who could silence the people finding out too much (the agent won't probably know what is going to happen).

It is not probable that all the people, who knew about the demolition charges in WTC, or those who installed the remote controls of aircraft or did some camouflage paintings for drones still are alive and capable of telling of their acts, which changed the world, when this is written.

8) The mini-nukes will be transported to the cellar floors with elevators. Then the elevators will be locked down, guarded and monitored –no service repairman will be allowed near these elevators. The thermonuclear device used in WTC7 was different, it's yield was set lower and it also was directed in a way better suited for that building.

9) The explosions have been timed so that 99.9% of people around will look the top of towers, as perhaps two seconds later the mini-thermonuclear bomb is exploded in the cellar of south tower, and again two seconds later another very powerful charge in the WTC6 customs building while nobody is looking that way. There are also the continuous explosions of the 1000s of cutting charges tearing the south tower down at the speed of gravity-driven free fall.

10) The demolition of either of the WTC towers took at least half an year to prepare, including installation of 10 000 cutting charges and the delivery of a thermonuclear device at the last moment. The demolition of those ultra strong steel pillars in the central core using cutting charges only is not possible without waking up unwanted attention. These charges must be in touch of the steel pillars, and there is not enough enclosed space in central core to hide these biggest possible charges.

11) The demolition operation is finished by destroying the WTC7 using a nuke and completely destroying the op center with it's equipment. Concrete evidence like the military flight beacon and the remote control devices for cutting charges and napalm as well as the recordings of eavesdropping devices regarding events within towers will vapourize and vanish without a trace.

SIDE MARKINGS

Most of the media is controlled by people related to the attack and tell only misleading stories, as if crushing of the airliners or a weak fire could have been causing the "collapse" of the towers. The true attackers are with a huge force broadcasting around their false version of the events, very different to what really happened.

Not even at this moment not a single newspaper, magazine nor a national tv-channel in western nations have taken a critical view on this so called truth, that explains that planes and fires caused by them destroyed the WTC-towers. The destruction of WTC-7, that has no explanation at all, is bypassed without any comments. Huge bomb, exploded in WTC-6

is also bypassed as non-existing event.

Some things, like the closest seismographs' sharply drawn pictures may have been falsified. A Specialist in demolitions, V.Romero, may have been forced to change his original opinion. Cheating is completed by Osama Bin Laden , who as a CIA-agent "confesses" to have ordered the airliner strikes. A media harrassment. Bin Ladens cheating and the suicidal arabs construct a net of lies, that catches the most of the mankind.

The laymen have no experience in observing differences with collapses, controlled demolitions and underground nuclear demolitions. Even the destruction of heavy steel constructions or a typical fire damage are far away from their field of experience. These towers were build to last the impacts of hitting of Boeing 707, comparable to Boeing 767, including the fires caused by the aviation fuel. And they survived that well.

The knowledge of relevant advances regarding weapon technology is even rarer. Manu of those, who would know, are bound by strict commitment of loyalty – that is clearly looked after. In some cases, those who speak are executed, (read, they will have an accident....)

The author of this text feels as his duty to publish in public discussion mainly the advanced knowledge in explosives from a military point of view, because it is obvious, that lacking this information people cannot explain the events observed around 911.

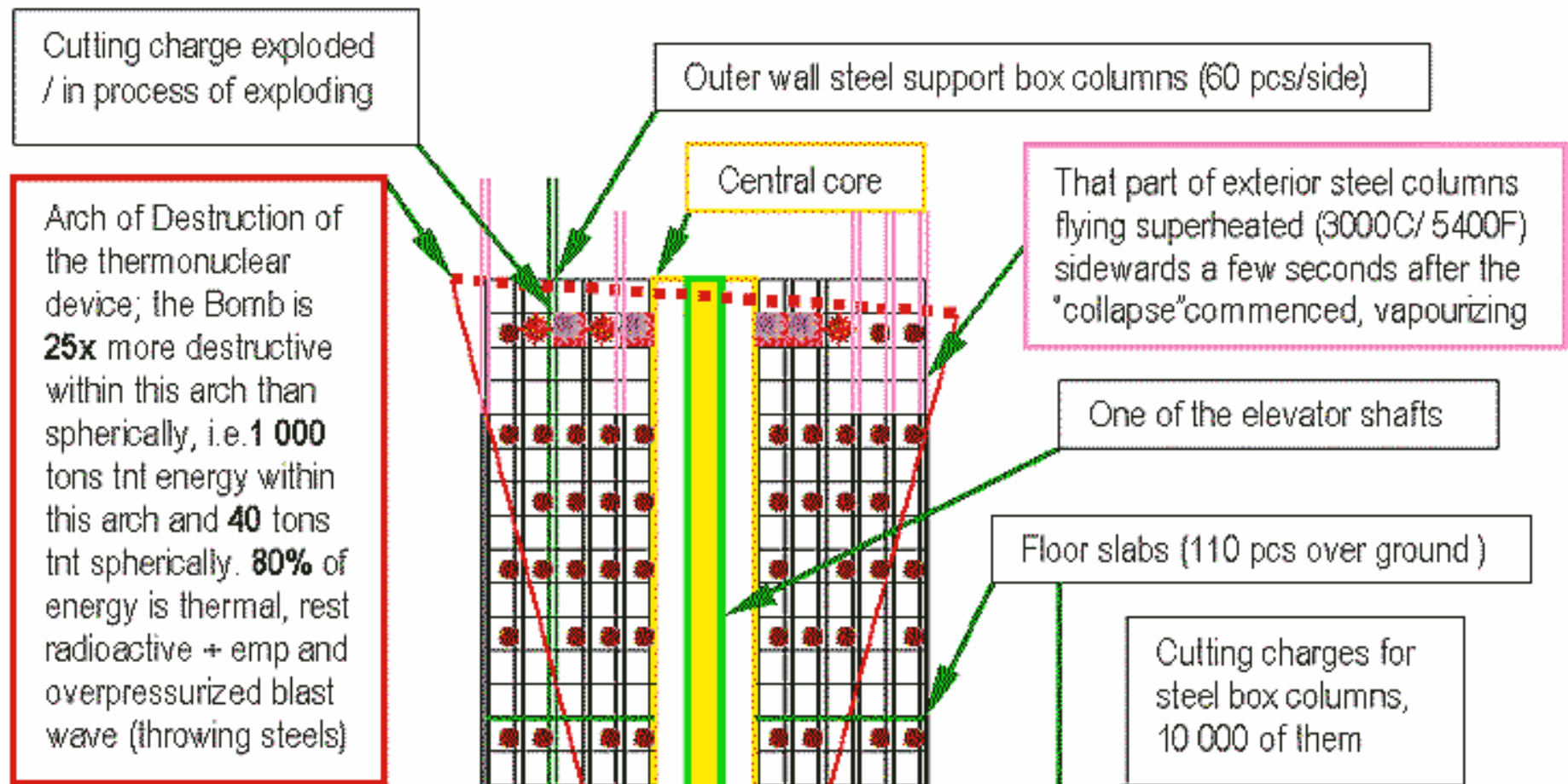
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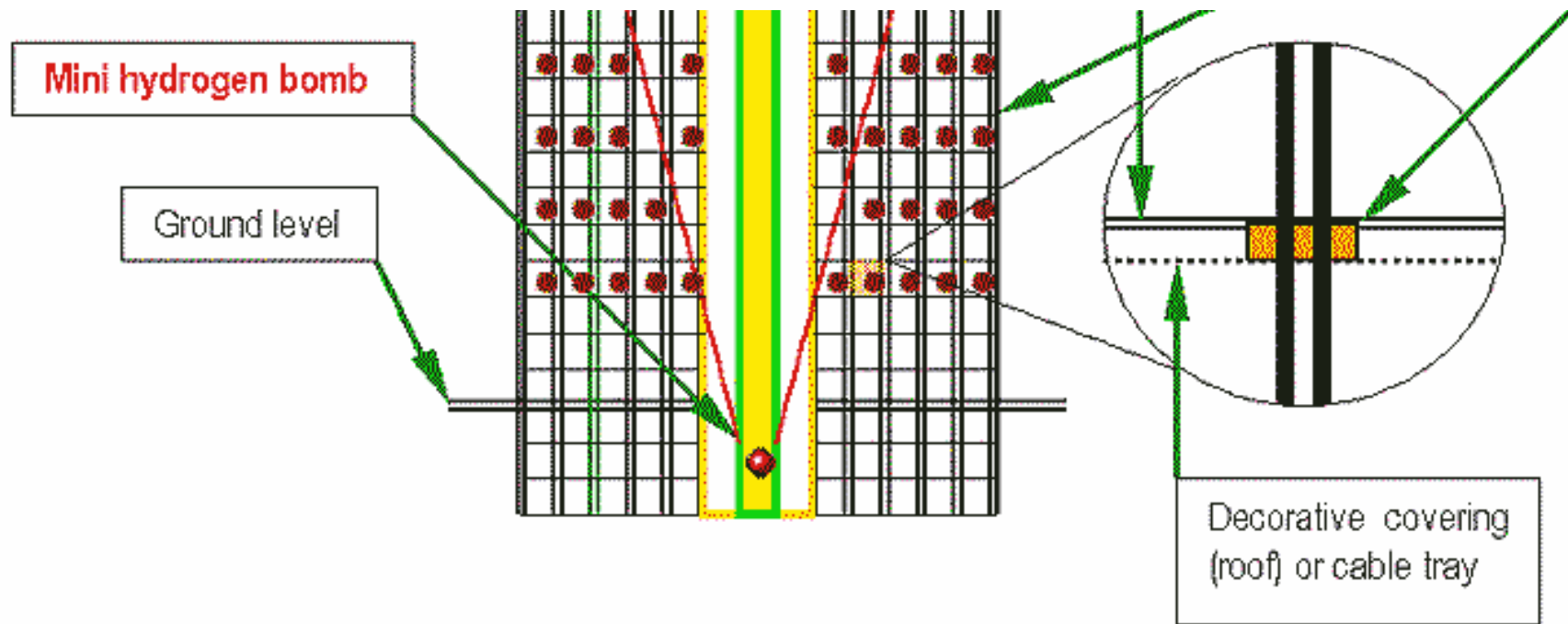
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Writings of a Finnish military expert

Bombs in the WTC

Note: This drawing is schematic only. Actual Towers were much taller and the observed arch of destruction for the directed-energy thermonuclear device was correspondingly more narrow.





The **Ground Zero** here was in the original sense of word, a nuclear blast site. The thermal energy may absorb heat at a rate of 10×10^{23} ergs / cm² sec and near the bomb all surfaces may heat to 4000 C or 7200 F igniting or vapourizing violently. Source: US Department of Defense & US Department of Energy, Glasstone – Dolan “The Effects of Nuclear Weapons” (1980).

The thermonuclear bomb used was a “pure” hydrogen bomb, so no Uranium or Plutonium at all. The basic nuclear reaction is Deuterium + Tritium \rightarrow Alpha + n. The ignition of this is the Fine part, either with powerful beam array or antimatter (in a very certain way to get the necessary directed-energy effect, in order not to level the adjacent blocks of high-rise buildings, too).

Writings of a Finnish military expert

The development of bomb technology related to 911 operations

These outlines of developments in military bomb technology have been written to give a layman some idea, why bomb technology has developed as it is.

Hollow charge that made possible a small charge to put a hole in armour plate was invented in Switzerland 1937. A cutting charge, used in WTC in tens of thousands of pieces, was an evolution model of hollow charge principle from 1950's. Claymore, a weapon throwing steel balls towards enemy, but was otherwise harmless even from 5 meters distance, was developed in USA approximately 1960. Flank mine, which is able to direct a narrow pressure wave through AFV flanks from distances 20 meters and more was developed in Finland around 1970. Due to efficiency causes growing part of military explosives deploy improvements utilizing directed explosion energy. By controlling several layers of the explosion fronts the size of nuclear bomb has minimized during 1960's (fission – implosion). Next the control of explosion force in nuclear explosions was developed. Too strong explosion is sometimes unusable. For an example when enemies have broken too close to friendly cities. While looking for a small size of a bomb with strong effect, a pure hydrogen bomb was obvious solution. When no atomic device is needed for igniting the hydrogen bomb size gets even smaller and the yield (effect) can be set in a wide range, for an example between 1 – 100. This succeeded in 1980's as well as the neutron bomb, which kills only the living things and leaves most of the material untouched. The former Soviet Union is said to have had more than 500 command centres durable for a small nuke. That led to developing of different types of bunker busters. A working solution is a nuclear missile that directs 96% of its yield into a thin, all penetrating heat+blast wave forward, tunneling hundreds of meters downwards into solid rock. This type of hydrogen bomb was developed sometimes in early 1990's. Nowadays in a tactical mini hydrogen bomb both the yield and the direction of destructive force can be somewhat controlled. The amount of fusion able

materials control the yield (effect) and the shape of the charge as well as the initiation arrangements impress the direction of the explosion wave.

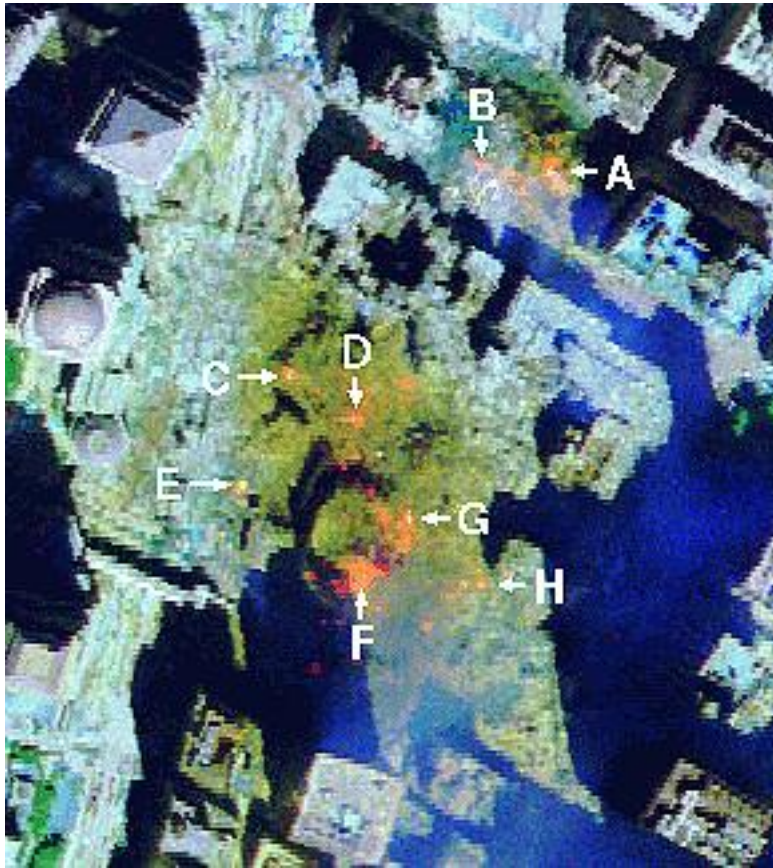
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Observations pointing to use of mini Hydrogen Bomb

- 1) The concrete pulverized into fine dust, 70...300 micron particles (just this could take more energy than the total gravitational energy available). Closer, see [Gehue plates 6](#) and [7](#)
- 2) Very energetic –hot– dust after the explosions (demolition charges would produce white clouds of dust, which would not move much, and gravity-driven collapse would produce much less and more coarse dust)
- 3) Brown shades of color seen in the air –these are produced by nuclear reactions of a thermonuclear device. The reactions use (gamma radiation –caused by free neutrons-, N_2 , O_2 , H_2O > nitrid acid, NO_2 , NO_3). These clouds soon get their usual white color after some minutes as the clouds also cease to be hot and fast-moving, becoming ordinary clouds with some water.

Note: many of the pictures taken regarding WTC Towers and clouds seem to have been developed too blue, killing shades of brown (this may be an attempt to suppress the evidence). Also there was supposed to be 200 000+ gallons of water on the roof of each tower –this water was spilling into stairwells etc, but was later all converted into water vapour reducing the brown color.

- 4) Superheated steel objects, disintegrating into steel vapour. From locations of elevator shafts molten ponds of steel, was found. There were lots of burned cars in the parking areas of the towers. The fire department announces not until 12-19-2001, that the fires under the WTC rubble have been distinguished (more than 3 months after the incident). More, see ([Gehue plate 8](#))



location	F	C	name
A	1341	727	WTC7
B	1034	557	WTC7
C	1161	627	WTC1
D	963	517	WTC1
E	801	427	WTC3
F	1377	747	WTC2
G	819	437	WTC2
H	1017	547	WTC4

[The thermal survey](#) of the WTC 9-16-2001 (NASA /US Geological Survey).

Despite of fire department having cooled the rubble Aluminium would still melt in some sites 5 days after the incident.

5) Elevated values of Tritium in this area, but not elsewhere in New York. The University of California found elevated values on 9-13-2001 and 9-21-2001 within bounds of WTC. They found them harmless for health. In pure hydrogen bomb isotopes of hydrogen are fused ($D + T \rightarrow n + a + 17.6 \text{ MeV}$).

6) EMP-type phenomenon blacked out gsm-phones at the moment, when the first (southern) tower started (to fall down), at the exact moment when mini-thermonuclear bomb was detonated. Even in electronic cams and videos a strange after glow is seen in late phase of collapse of both towers. Closer, see

[Gehue plate 5](#)

7) Pressure wave was witnessed in the root of the tower at the moment when so called collapse was progressing just about two hundred meters and nothing had fallen down to earth. The blast wave threw for an example a photographer, who was taking photos of dust cloud, down. Same as a fireman close to the entrance. Burst of the dust cloud on the root of the tower was photographed as well (the picture down below shows apparently the explosion of the WTC6 to cover up some mega class robbery).



8) In the cellar, from all of the 47 ultra strong steel pillars, the steel was melted completely more than over 20 meters length. Even cars were melted and burned in the cellar. Pillars in question, were far too thick for thermite, which some have suggested. An explosion of thermonuclear bomb explains the phenomenon well.

9) Steel columns and pillars were ejected in the surroundings of the building. In the beginning of the so called collapse, there exists no such energy that

could throw steel pillars outwards 60 to 175 meters from trunk. Even cutting charges cannot do that. The blast wave from a nuclear bomb is capable to do that instead.

[UP](#)

Beginning of winter in New York? The fine dust from pulverized concrete, asbest and other materials is covering the quarter as a layer of several centimeters. That was not seen with any other blast before.



The destruction of the WTC

The layer of dust



The destruction of the WTC

Dust clouds energy need



The finer the material is being destroyed the bigger is the energy need for it. You will need ca. 1 kg of explosives for 100 tons steel or concrete with conventional explosions. This is sufficient for destruction into transportable pieces if gravity is used smart enough and gravity delivers 50% of the energy. With pulverization the energy need is 10 times larger. The help of gravity is almost meaningless in this case.

The complete mass of WTC 1, 2, 3 and 7 was about 1.4 million tons. This results into a need of 14 tons of conventional explosives. Modern military explosives are more efficient, of course.

© Karl Moor

The destruction of the WTC

Following fire and explosion damages



Behind the dust cloud more explosions take place and fires are starting. A lot of burned car wrecks can be seen. The dust cloud out of concrete and asbest had the effect of a giant fire extinguisher. The fires must have started afterwards. The subway tubes have partly crashed on a length up to 500 metres. On 12-19-2001 the fire department announces that all fires under the rubble have been distinguished. What has burned there for three months?





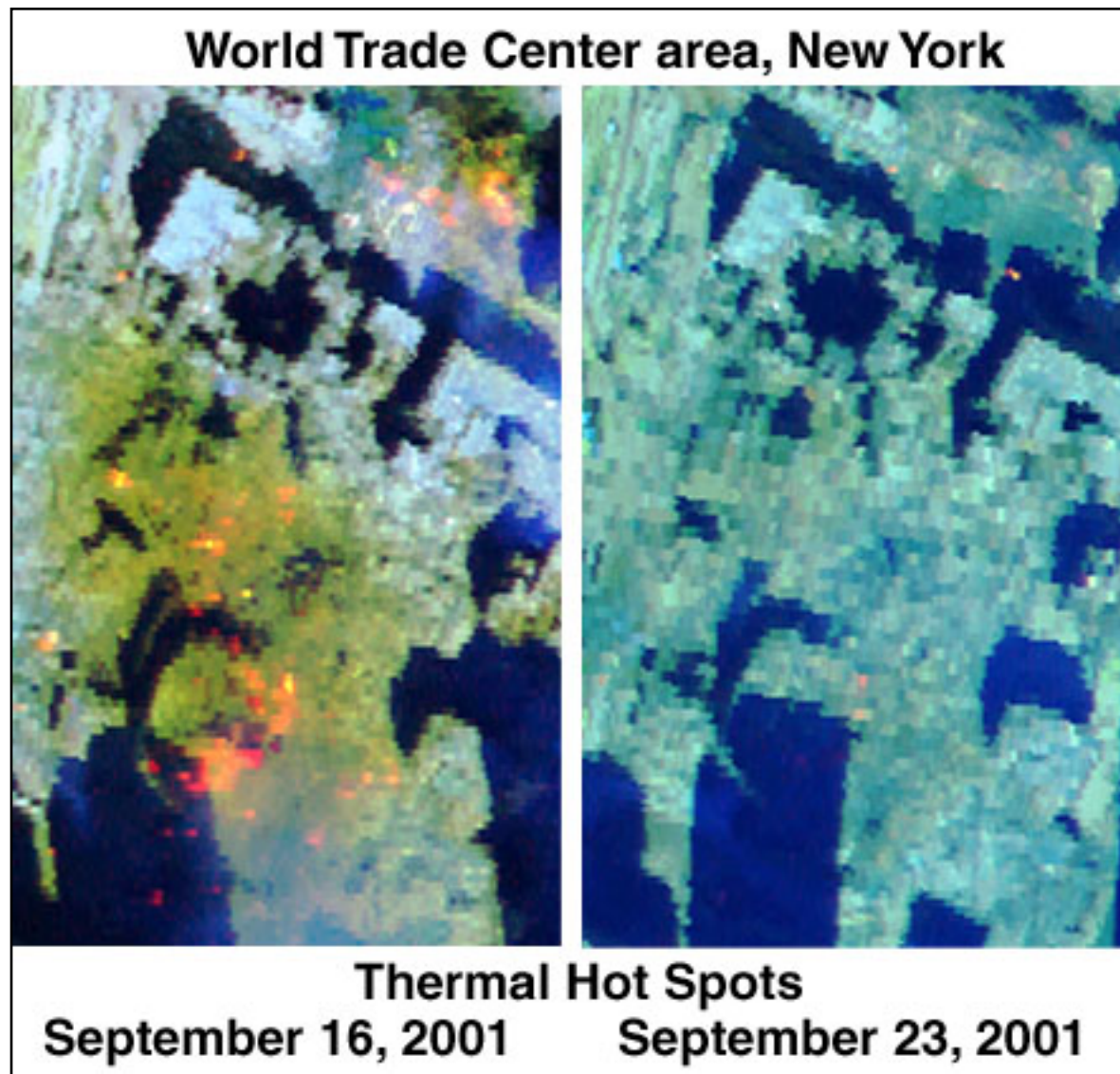
Images of the World Trade Center Site Show Thermal Hot Spots on September 16 and 23, 2001.

Results of Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) remote sensing data and interpretations show the distribution and intensity of thermal hot spots in the area in and around the World Trade Center on September 16 and 23, 2001. Data collected on the 16th were processed, interpreted and released to emergency response teams on the 18th of September, 2001. The September 23 data were processed, interpreted and the results released on October 12, 2001. The images of the World Trade Center site show significant thermal hot spots on Sept. 16, 2001. By Sept. 23, 2001, most of the hot spots had cooled or the fires had been put out.

The AVIRIS instrument is a National Aeronautics and Space Administration (NASA) remote sensing instrument that measures upwelling spectral radiance in the visible through short-wavelength infrared. The instrument has 224 spectral channels (bands) with wavelengths from 0.37 to 2.5 microns (micrometers).

In response to requests from the EPA through the USGS, NASA flew AVIRIS on a De Havilland Twin Otter over lower Manhattan at mid-day on September 16 and 23, 2001. For these deployments, the Twin Otter was flown at altitudes of 6,500 and 12,500 feet. The spectral data for the maps shown here were measured at 6,500 feet and have a spatial resolution (pixel spacing) of approximately 6 feet (2 meters).

AVIRIS records the near-infrared signature of heat remotely. The accompanying maps are false color images that show the core affected area around the World Trade Center. Initial analysis of these data revealed a number of thermal hot spots on September 16 in the region where the buildings collapsed 5 days earlier. Analysis of the data indicates temperatures greater than 800°F. Over 3 dozen hot spots appear in the core zone. By September 23, only 4, or possibly 5, hot spots are apparent, with temperatures cooler than those on September 16 (Thermal Figure 1).



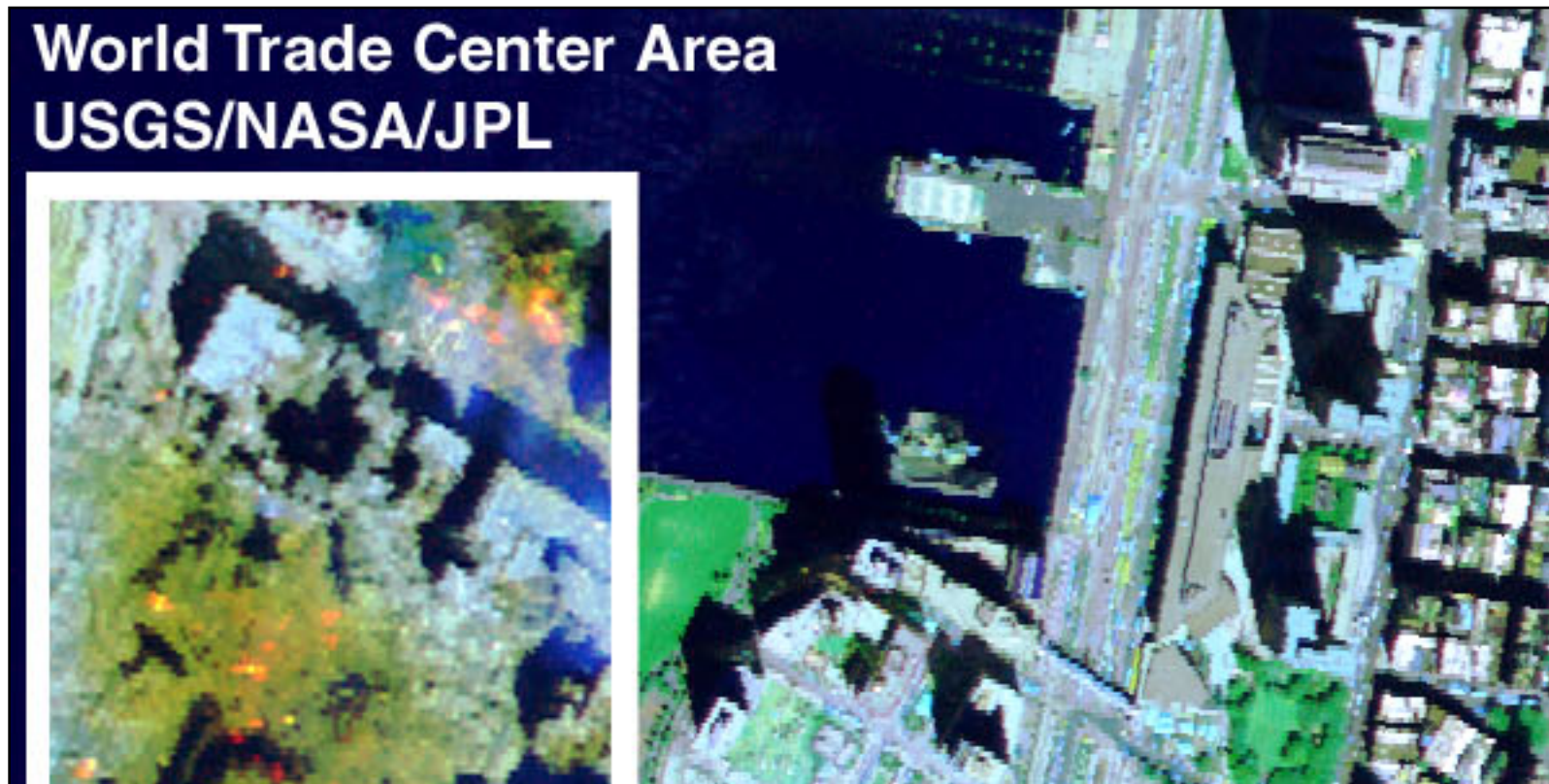
Thermal Figure 1. Hot spots show as orange and yellow areas. Dozens of hot spots are seen on September 16, but most had cooled or the fires had been put out by September 23.

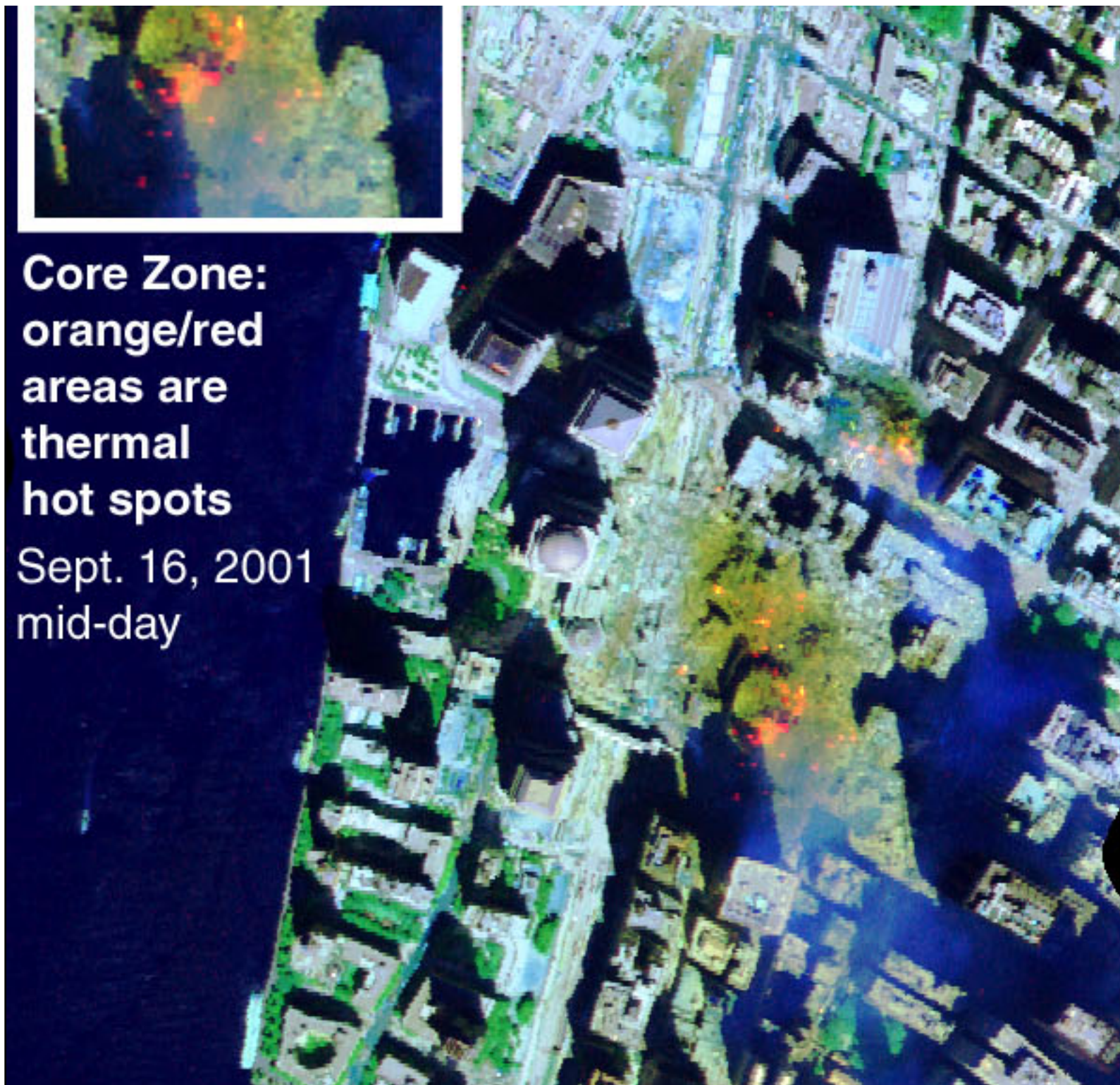
The images (larger area shown below) also show vegetated areas as green. Water appears blue, and the smoke from the fires appears as a light blue haze. White and lighter blue areas are rooftops, roads, and concrete as well as dust and debris from the collapsed buildings. Dust, probably more than a millimeter thick, appears in shades of brown around the core WTC area on the 16th.

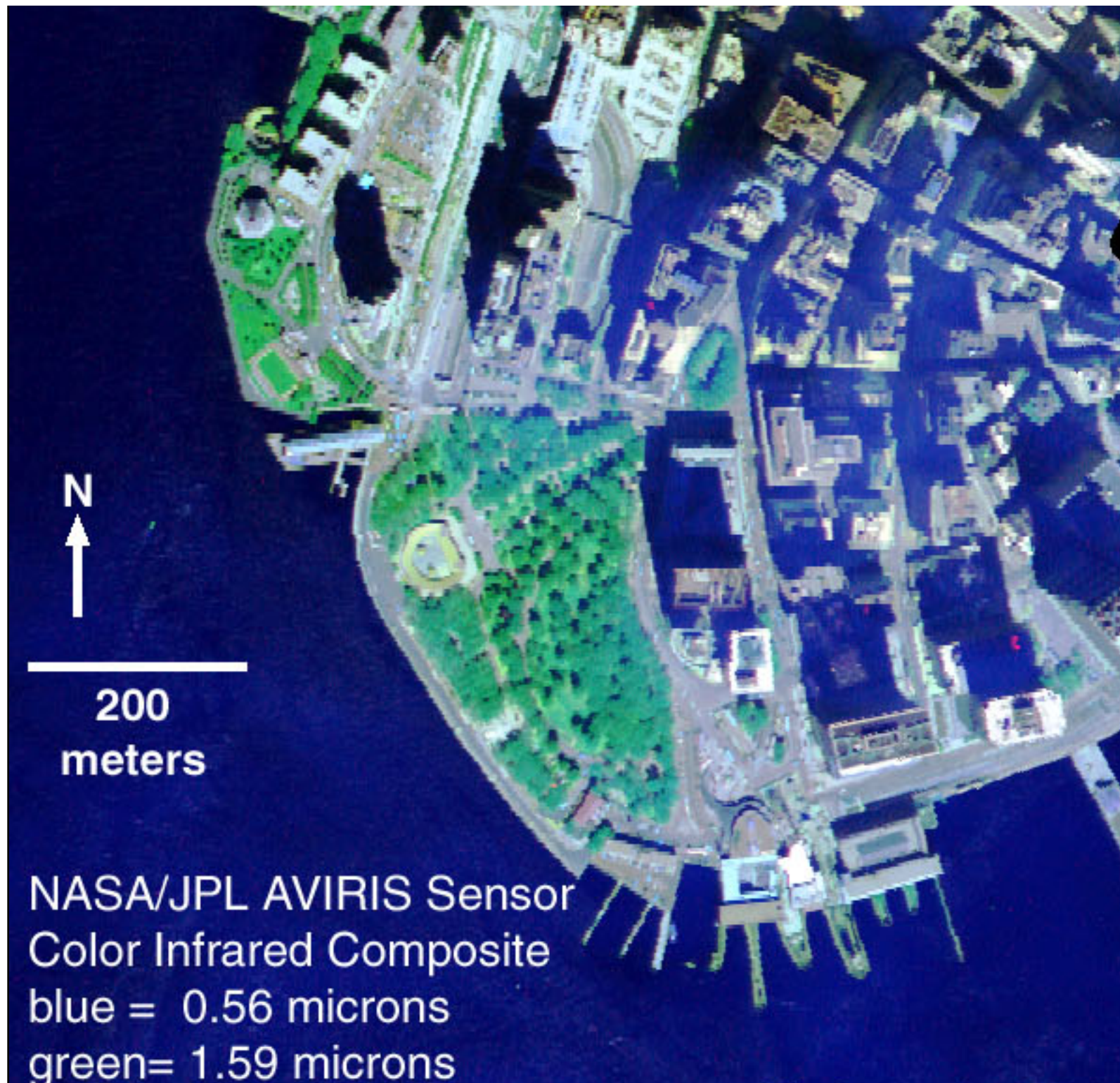
On the September 16th, 2001 image (Thermal Figure 2), large areas around the World Trade Centers show brownish colors, indicating the debris. On September 20, 2001 there was a significant rain storm that washed away some of the dusty debris. Reduction of the distribution of dust/debris is apparent in the September 23 image (Thermal Figure 3), and can be attributed to the cleanup effort along with the rain.

There are other red/orange spots that show in the images in the area south of the World Trade Center zone. These are hot spots from chimneys or heating exhaust vents and are normal and not other uncontrolled fires.

The AVIRIS data were processed at the Jet Propulsion Laboratory (JPL) in Pasadena California where the data are calibrated to radiance and corrected for aircraft yaw, pitch, and roll. Acquisition and calibration of AVIRIS data at JPL are under the direction of Robert O. Green. The data were then transmitted to the U.S. Geological Survey (USGS), Imaging Spectroscopy Group in Denver, Colorado, under the direction of Dr. Roger N. Clark. Atmospheric and ground calibrations were applied to derive apparent surface reflectance and maps were then made of surface materials. The USGS imaging spectroscopy group includes Dr. Gregg Swayze, Eric Livo, and Todd Hoefen.



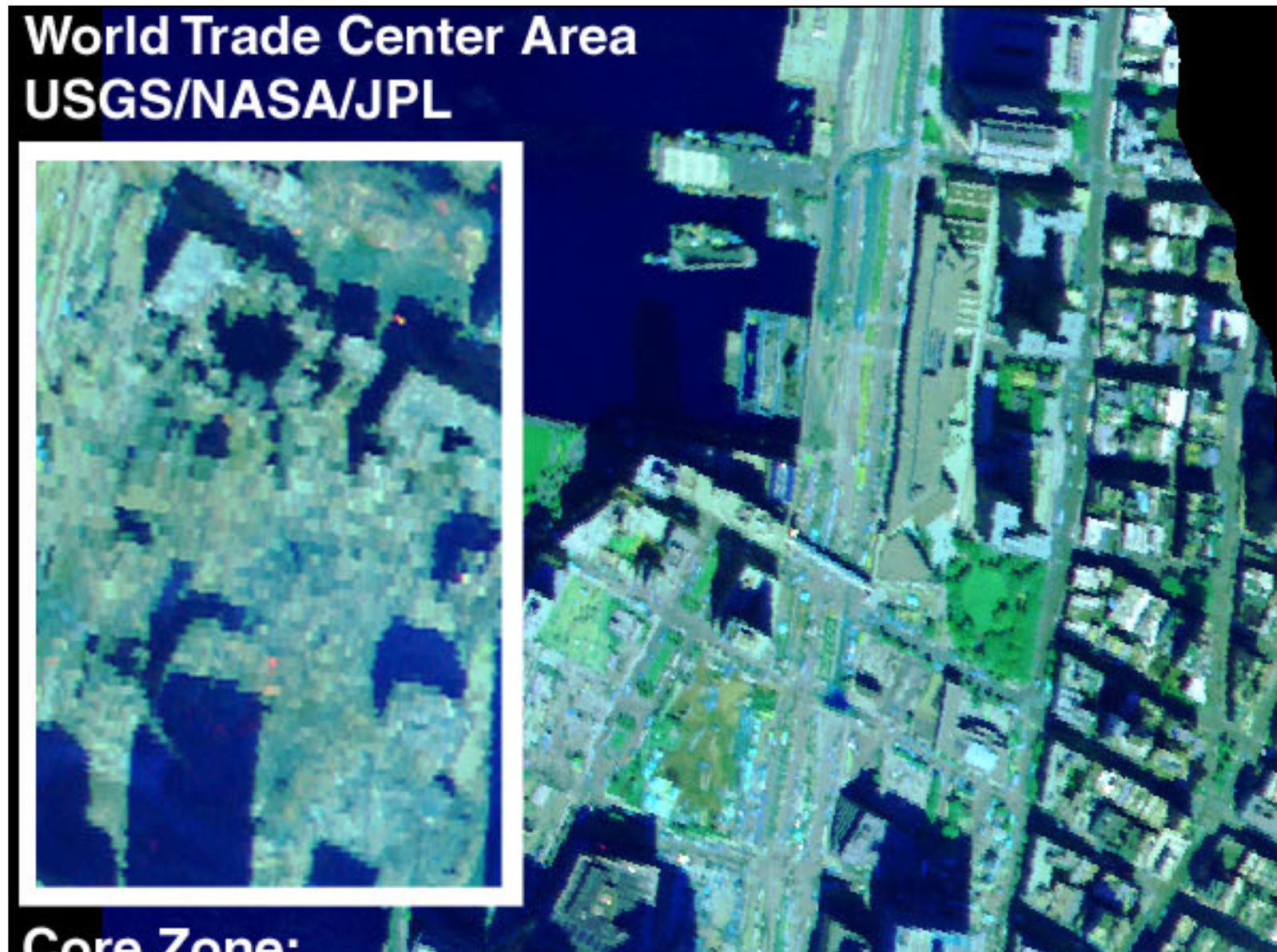




red = 2.47 microns

Clark et al., 2001

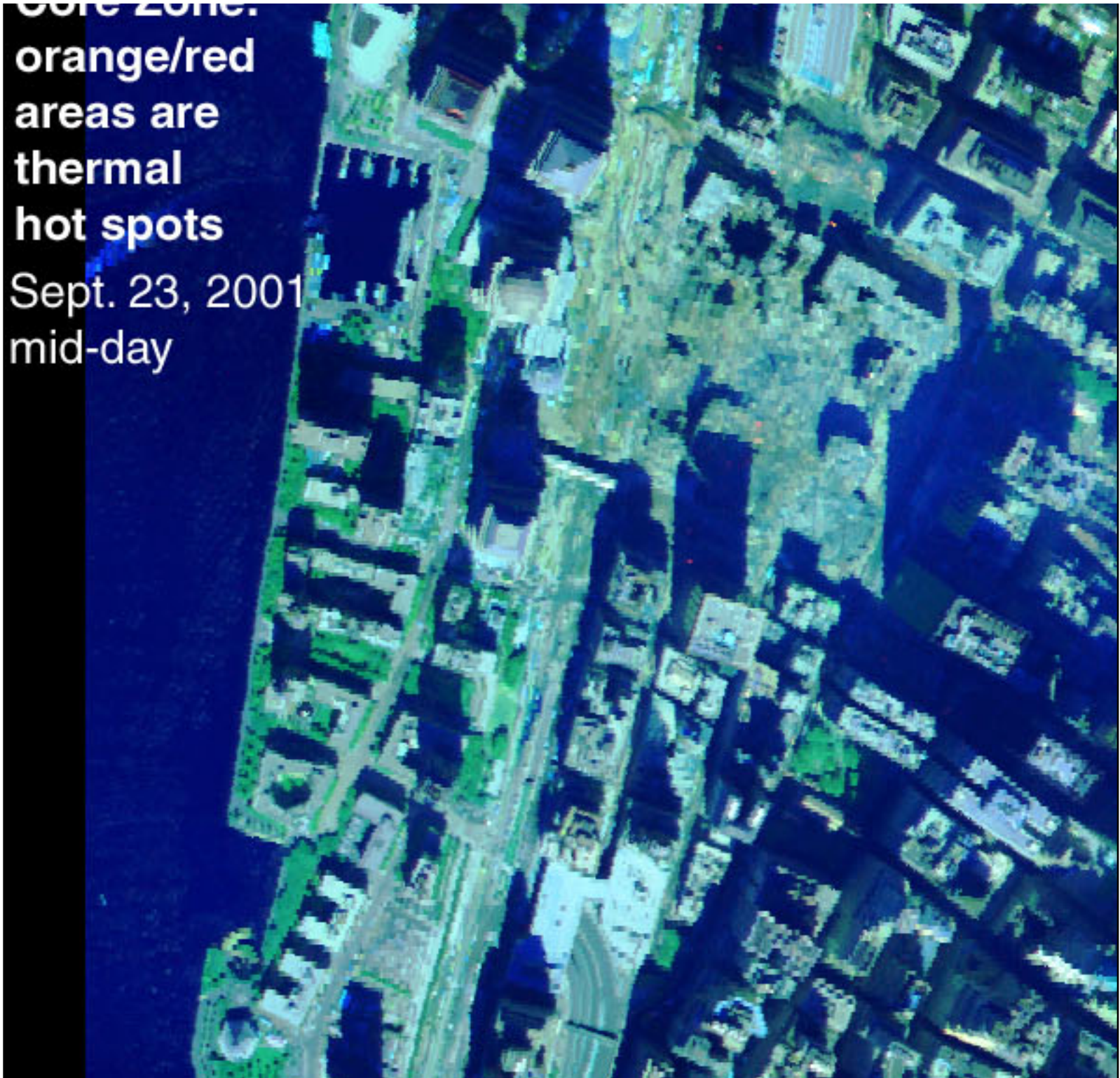
Thermal Figure 2. AVIRIS image from September 16, 2001. Hot spots show as orange and yellow areas. Yellow is hotter than red (because of color mixing in the way the 3-color image was produced).

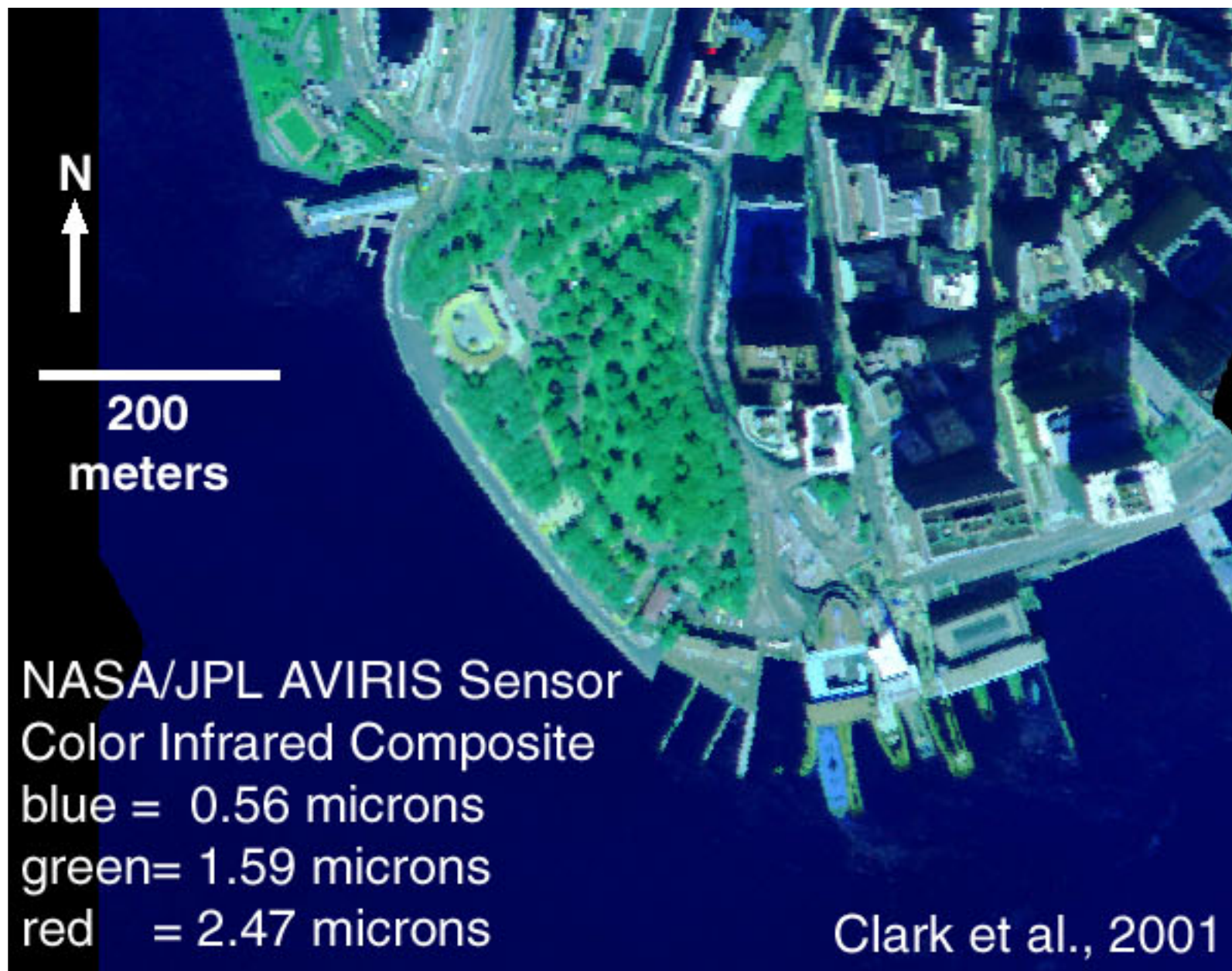


Core Zone:

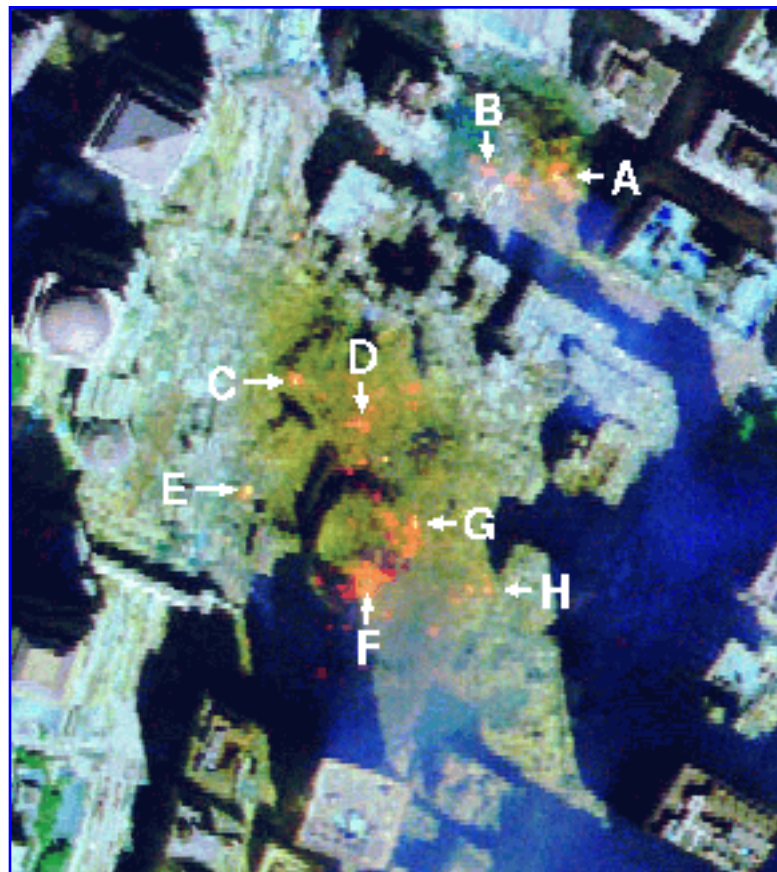
**orange/red
areas are
thermal
hot spots**

**Sept. 23, 2001
mid-day**





Thermal Figure 3. AVIRIS image from September 23, 2001. Only a couple of hot spots remain in view.



[Larger 254 KB image](#)

Thermal Figure 4. Index for the locations of some of the hot spots observed on September 16, 2001.

Temperature of the Hot Spots

Remote measurement of the temperature is difficult because the source of the thermal emission can be less than the field of view of the measuring instrument. In that case a thermal sensor has an ambiguous solution: a hotter temperature of a smaller area or lower temperature of a larger area can result in the same total received thermal radiation.

A spectrometer, however, overcomes the ambiguity problem above, because the shape of the thermal spectrum can be used to

derive a unique temperature, and the intensity gives the area of the emitting source. If a large enough spectral range is covered, a range of temperatures and the area of each can be derived. In the near infrared spectral range of AVIRIS, reflected solar radiation also contributes to the signal. The solution to the generalized problem involving all these effects is given in Clark (1979).

We derived temperatures using two methods: calibrated radiance, and derived reflectance following Clark's (1979) methods. In derived reflectance, thermal radiation is the Planck response divided by the solar spectrum. This has several effects: 1) the data are corrected for atmospheric absorption and scattering, 2) the reflected solar component can be readily assessed and compensated for, and 3) the ratio of the Black-Body response by the solar spectrum produces a very steep curve that is readily distinguishable from reflected sunlight and reflectance of surface materials.

Simple temperature derivation from derived reflectance is illustrated in Thermal Figure 5a and b. Here the hot spot is assumed to fill the pixel. The thermal response of hot spot A (from Thermal Figure 4) shows the AVIRIS response higher than the 800 kelvin curve. The 800 Kelvin temperature is a lower limit to the temperature. While the upper limit might be the 900 Kelvin curve, we see the slopes do not match. As temperatures increase, the peak in Black Body emission moves to shorter wavelengths and the slope of the curve decreases at positions on the short wavelength side of the peak (the case here).

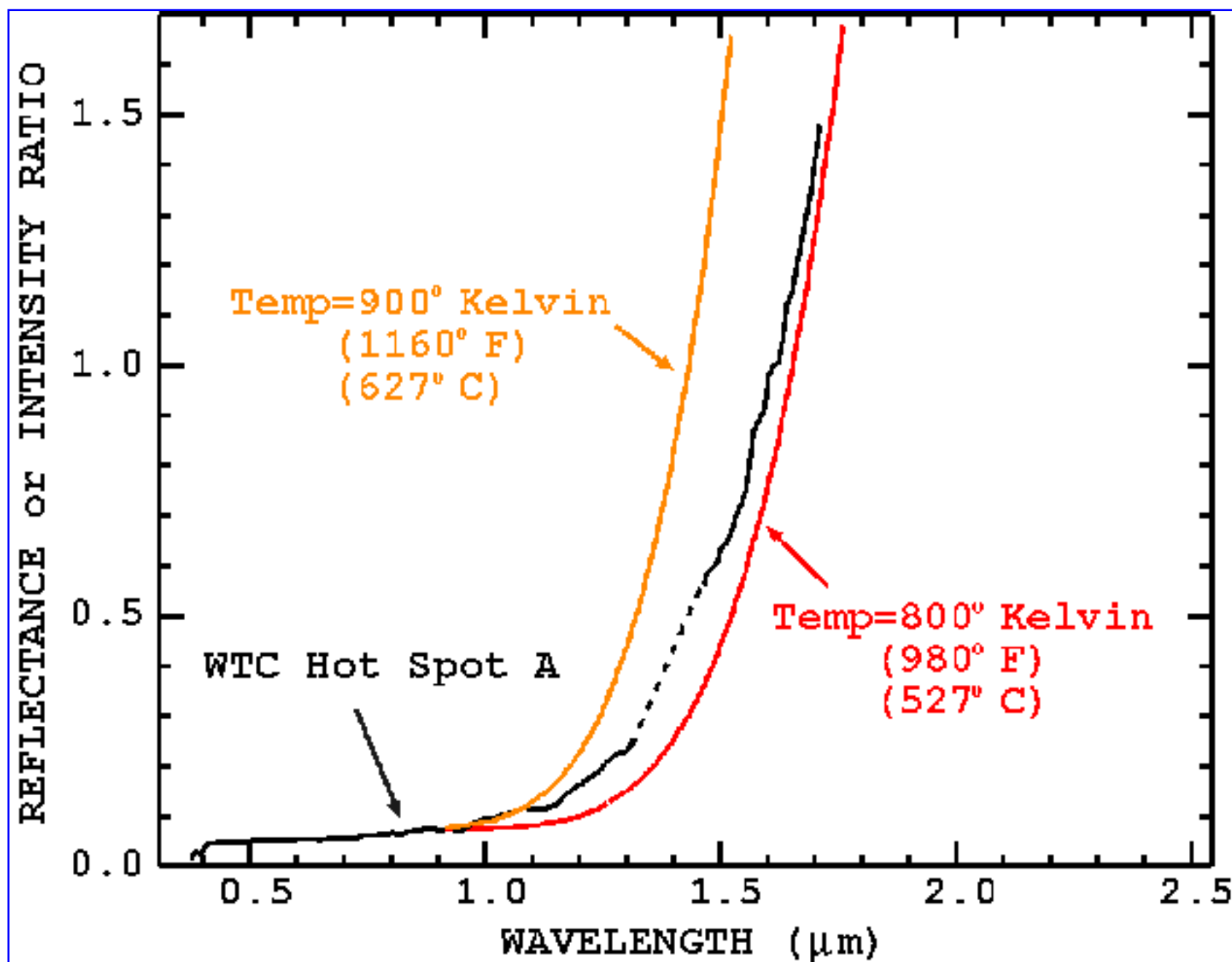
Hot spot C (Thermal Figure 5b) shows similar effects. For hot spots covering the full area of the pixel, the temperature must be greater than 700 Kelvin. At about 1.3 microns, the model at 800 Kelvin matches the AVIRIS data, but the 800 Kelvin curve has a higher slope. This indicates the hot spot is smaller than the size of the pixel, but hotter than 800 Kelvin.

Solutions that include reflected solar radiation, hot spot temperature and hot spot area are shown in Thermal Figures 6a and b. Hot spot A, which from Thermal Figure 5 has a temperature greater than 800 Kelvin, is found to have a 1000 Kelvin temperature in a spot covering ~15% of a pixel, or 0.56 square meter. Similarly, hot spot C is found to have a 900 kelvin temperature over 20% of a pixel, or 0.8 square meter.

The sensitivity of the solution of area and temperature is illustrated in Thermal Figure 7. An excellent fit is obtained for hot spot C with a 900 Kelvin spot filling 20% of the pixel. At 1000 Kelvin, only 8% is required but the fit is noticeably worse. For temperatures in the 800-1000 Kelvin range, temperature accuracy is estimated to be ± 30 Kelvin and the area $\pm 5\%$. For smaller spots, like spot G in Table 1, the temperature accuracy is similar, but the accuracy on such small areas is approximately $+5\%$, -0.5% . For example, decreasing the temperature to 1000 Kelvin (from 1020 Kelvin) on spot G increases the fractional area to about 5%.

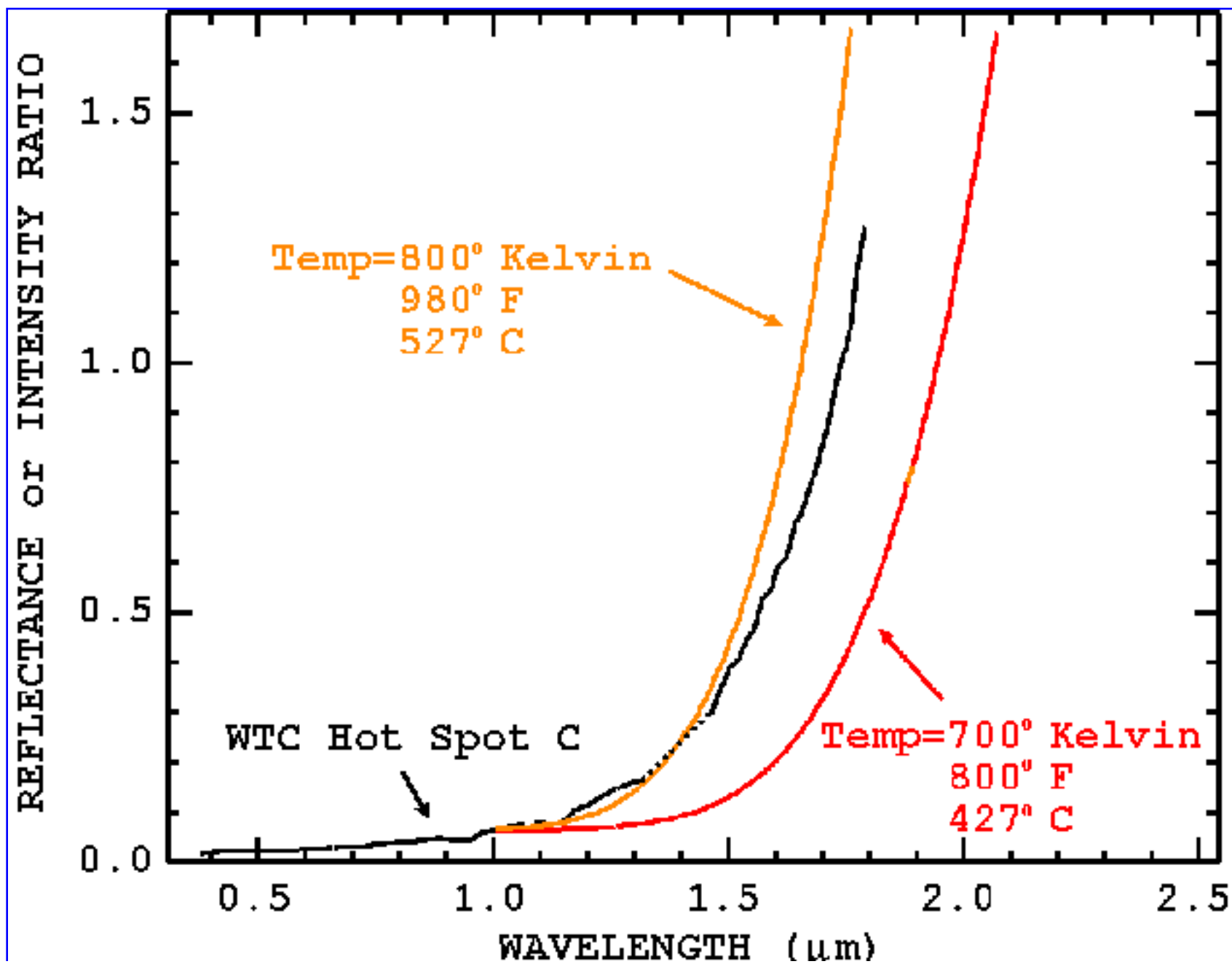
Positions, temperatures and equivalent areas for hot spots A-H are given in Table 1 and the geometrically rectified location map

is shown in Thermal Figure 8.



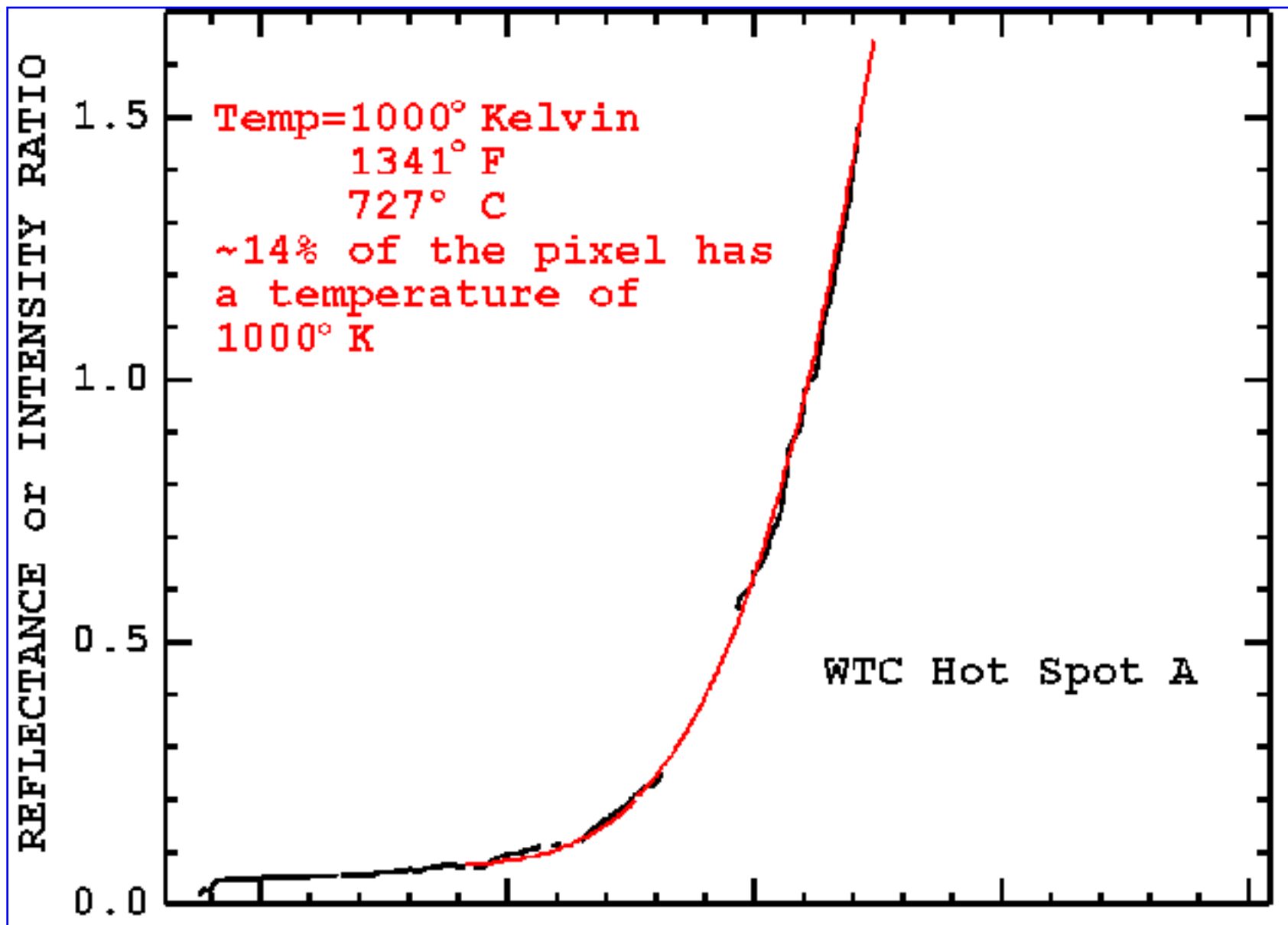
[Larger 16 KB image](#)

Thermal Figure 5a.



[Larger 15 KB image](#)

Thermal Figure 5b

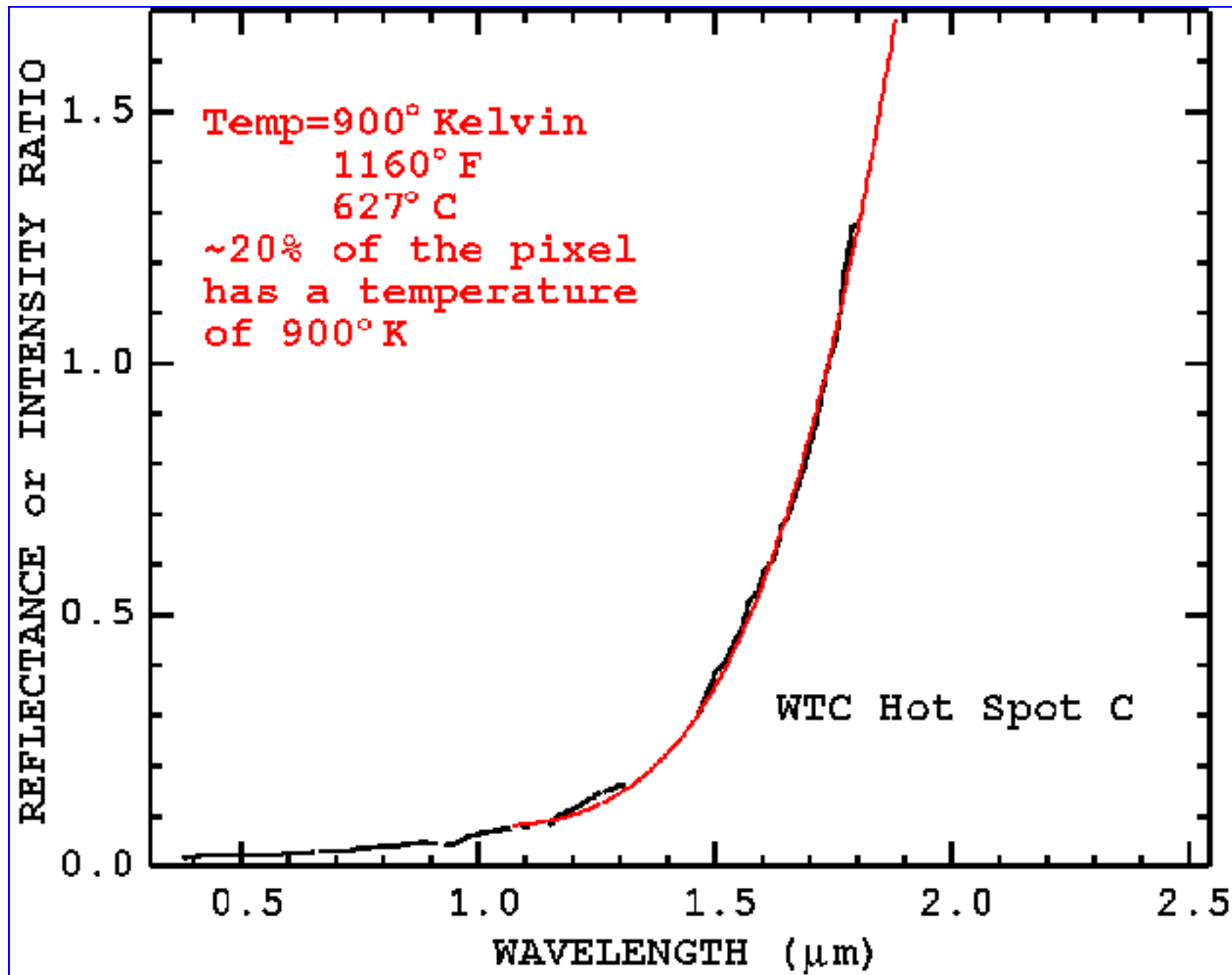




[Larger 13 KB image](#)

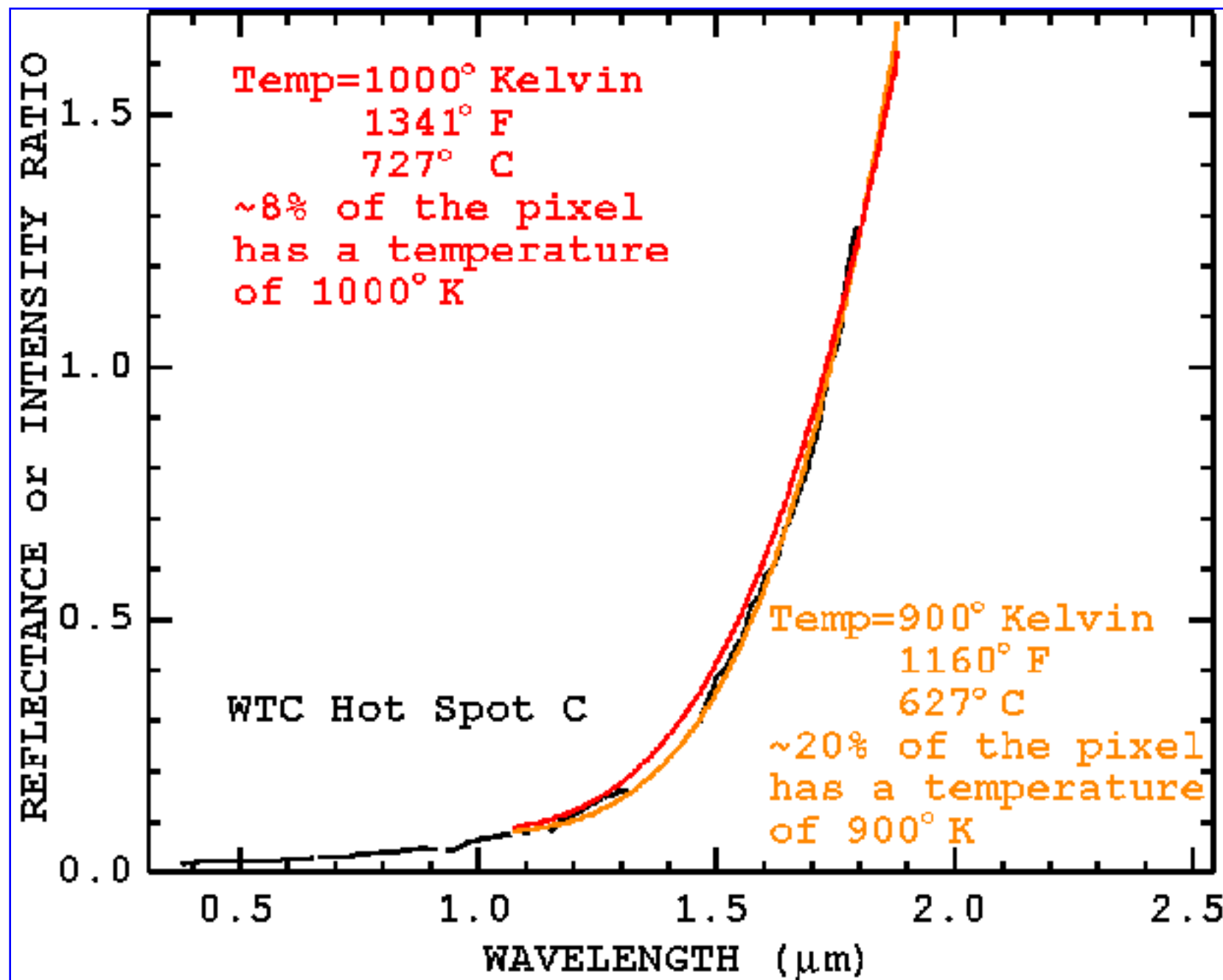
Thermal Figure 6a





[Larger 13 KB image](#)

Thermal Figure 6b



[Larger 16 KB image](#)

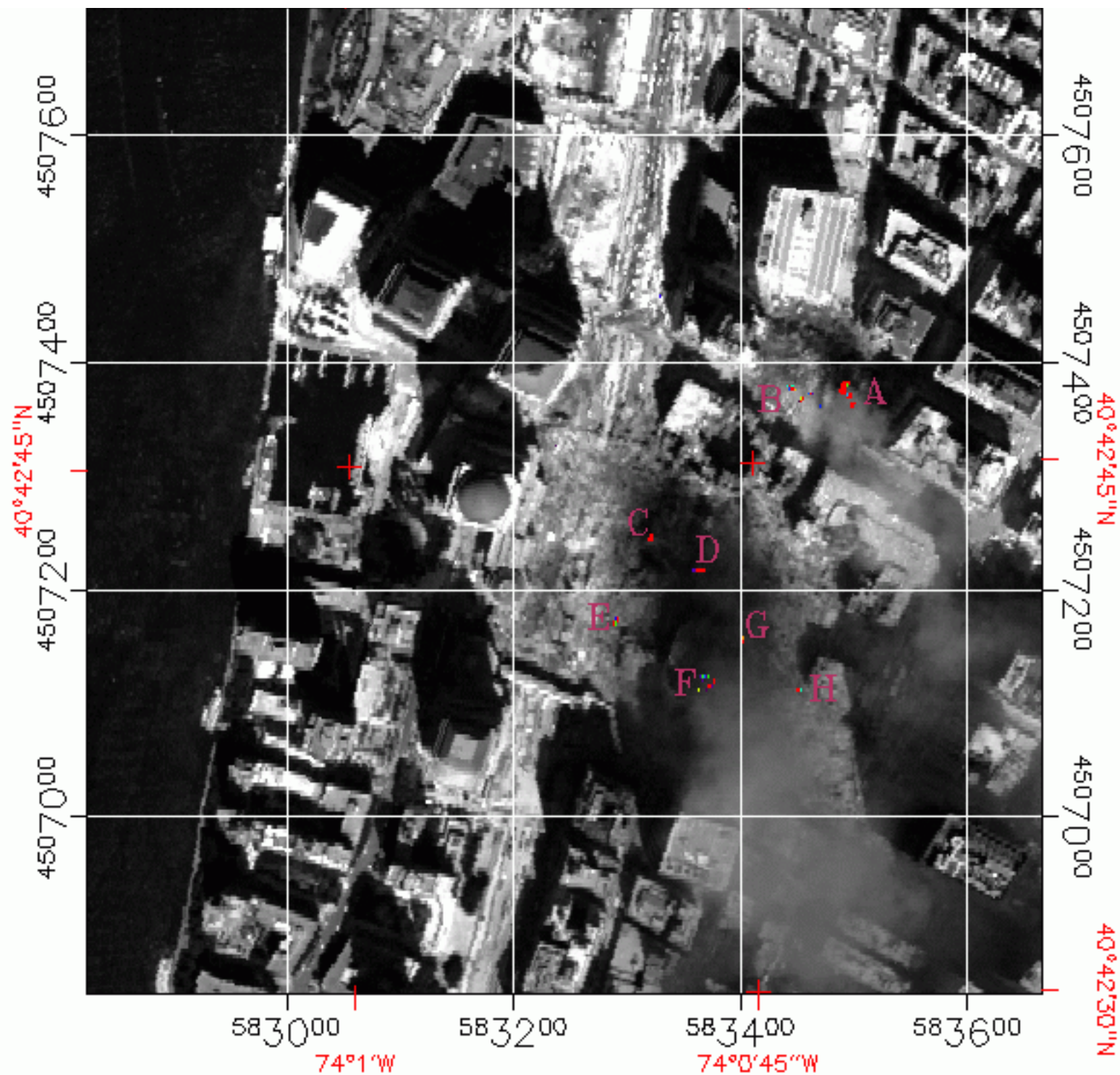
Thermal Figure 7.

Table 1 Thermal Hot Spot Data

Hot Spot	Location		Temperature	Area	
	N Latitude	W Longitude	(Kelvin)	% FOV	sq meter
A	40° 42' 47.18"	74° 00' 41.43"	1000	15	0.56
B	40° 42' 47.14"	74° 00' 43.53"	830	2	0.08
C	40° 42' 42.89"	74° 00' 48.88"	900	20	0.8
D	40° 42' 41.99"	74° 00' 46.94"	790	20	0.8
E	40° 42' 40.58"	74° 00' 50.15"	710	10	0.4
F	40° 42' 38.74"	74° 00' 46.70"	700	10	0.4
G	40° 42' 39.94"	74° 00' 45.37"	1020	1	0.04
H	40° 42' 38.60"	74° 00' 43.51"	820	2	0.08


Positions are in degrees-minutes-decimal seconds, datum WGS84.
Position accuracy is estimated to be approximately +/- 6 meters (18 feet).





AVIRIS Hot Spot Mapping 09/16/2001

Color Coded Hot Spots on B/W Image Background
UTM projection, zone 18
NAD-83/WGS-84 datum, 1.7 meter pixels



lower temp. scale higher

[Click here for 180 KB geo-tif image](#)

Thermal Figure 8. Geometrically rectified image of the WTC core region showing hot spot locations.

Additional temperature analysis: ftp://popo.jpl.nasa.gov/pub/outgoing/WTC_AVIRIS_HOT.htm

[NEXT PAGE of Report: Asbestiform Minerals Map](#)

[Back to document Table of Contents](#)

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[Link to the AVIRIS JPL data facility\)](#)

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This Page is <URL: <http://pubs.usgs.gov/of/2001/ofr-01-0429/thermal.r09.html>>

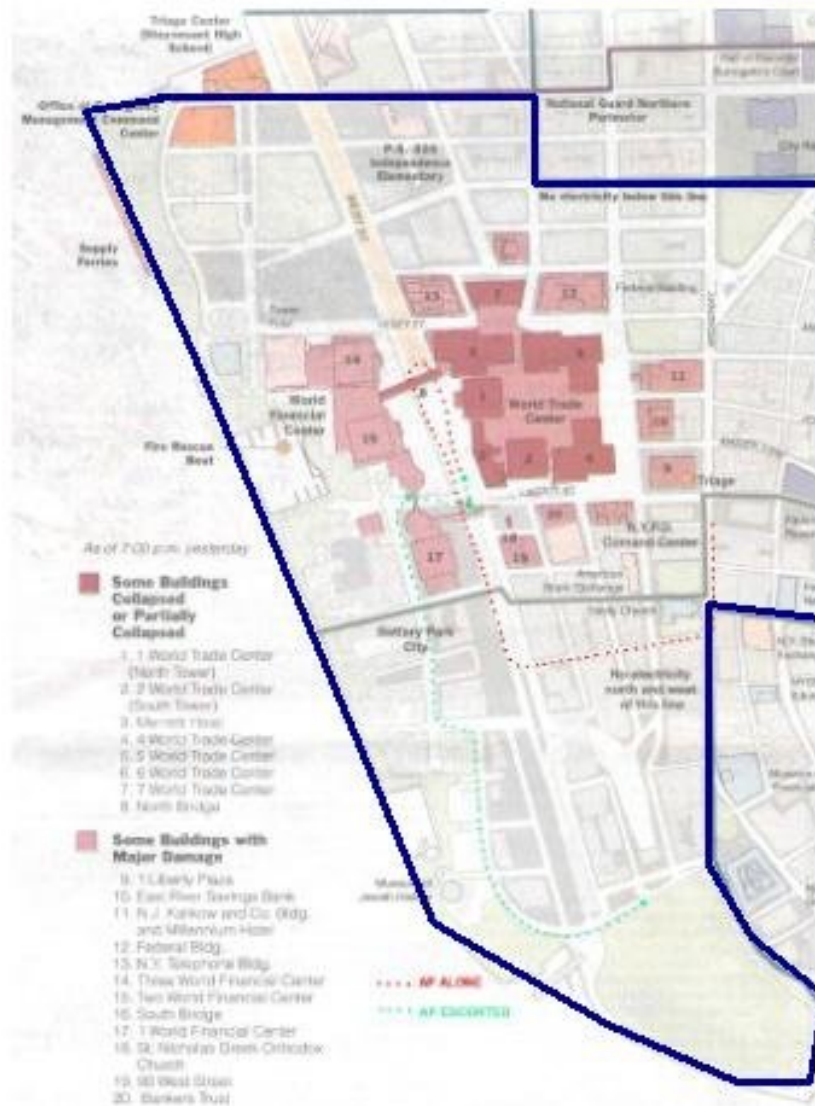
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Website Maintained by: [Tracy Pinto](#)



The destruction of the WTC

Map with boundaries of power outage



power outage in this area

Also almost all telephone lines were interrupted, likewise fax, email, webcams, etc. The reinstallation took place until December.

On 9-11 the walkie-talkies of the New York fire department didn't work. Therefore it was not possible for the commander to get his men out of the buildings in time. A similar outage was seen with the bomb attack in 1994.

Lower Manhattan was separated in those hours completely from the outer world.

How could that come?

© Karl Moor

Writings of a Finnish military expert

View of a military expert: why did the towers of World Trade Center collapse

The airplanes did not have true effect on the destruction of towers, they were needed to give an excuse for odd orwellian war scenarios in the same time when USA was turned to a police nation much like nazi-Germany was. Towers handled well an impact of a crushing Boeing 767, they were originally built to handle an impact of quite same sized Boeing 707, widely used in the 70's.

Fires that started from the fuel in the planes, were too short lasting and weak to be able to severely damage the structure of the skyscrapers. Even in the best possible situation heat from a kerosene fire can not threat durability of a steel trunk: With carbohydrates temperature reaches only 825 C, steel weakens at 800 C and melts in 1585 C. In the skyscrapers of WTC the surroundings were not at all ideal, steel columns were far too many and they led heat away from the burning area. WTC1 burned 102 minutes and WTC2 56 minutes only. A fire burning much longer, 10 - 20 hours could slowly increase the burning temperature to perhaps 1100 C. Provided there is more matter to burn such a fire will damage concrete and irons, but still not heavy steel constructions severely



In mid February, in Madrid, the Windsor tower (see above) burned over 20 hours, which

led to a fire stronger and hotter than that in WTC, but even there the collapses were minimal and limited in the upper floors. If the WTC tower had started to collapse – which did not occur - the collapse would have limited in few floors and then stopped. Impossibility of gravitational collapse is closer seen in an article from Dr. Tech. Heikki Kurttila. A collapse would produce large pieces, and does not explain reports of witnesses like fine dust from concrete, huge amount of dust and outwards ejected pieces of steel.

Destruction of towers by explosion is clear according to the photographs and reports of the eye witnesses. In the picture down below, in the down left sector a range of cutting charges have just exploded and a typical white cloud is formed outwards from the wall. Down right, explosions are seen as well, even a flame is seen from one of the explosions.



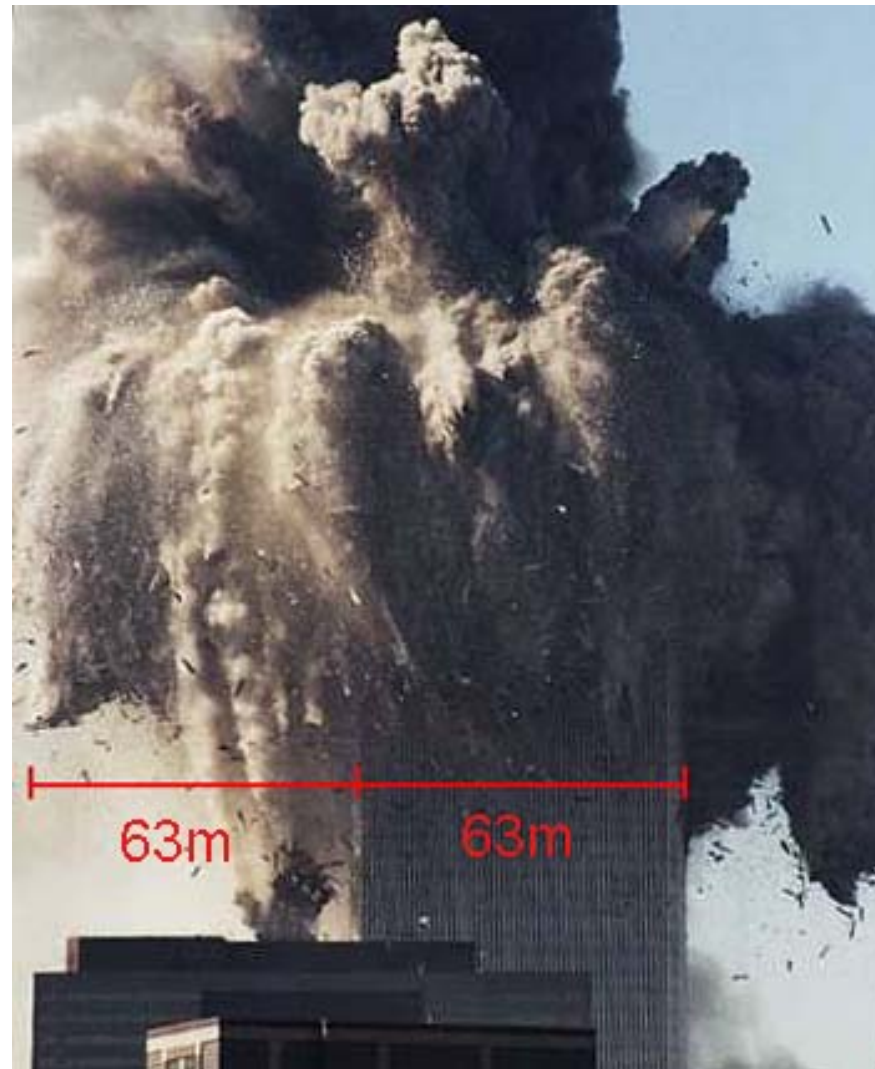
In videos taken from so called collapses of WTC, more explosions of these cutting charges are seen. The explosions advance quickly, with a gap of a couple of floors, cutting the strong steel pillars in outer wall. The explosions are timed so that it appears that the tower is collapsing in the same timing as in a gravitational collapse. The explosions are not completely synchronized in timing, probably a few charges are triggered by radio and other charges explode from impulses of one of these charges (infrared, pressure wave).

More challenging problem to the demolition men than the outer structure is the central core of the building with its 47 steel pillars far stronger than those in outer walls. Those pillars were made from steel even 100 + 100 mm thick in the cellar, that is thicker than

the side armour of a battle tank. Cutting those, even with explosives is extremely difficult. One should surround the whole pillar with strong cutting charges, meaning every single pillar on every floor intended to get blasted. These charges should be placed in such a way that the users of skyscrapers would not attend these preparations of mass murder.

As seen in the following pictures, the core of the towers were not distracted by thousands of strong cutting charges, but by a modern thermonuclear explosive, a mini hydrogen bomb. In the picture down below, a hydrogen bomb explosion, placed in the cellar and directed to the core, has reached the roof of the tower and upper parts of the outer walls. In its way upwards the heat and pressure waves partially penetrated about 100 floors of concrete and steel. Ten million+ degrees of heat from a hydrogen bomb sublimised all water within concrete in a moment. Water exploded momentary into 24-fold volume and totally pulverized the concrete. Even people and computers that were there disappeared into heath and light, that is why almost nothing of them was foud in the ruins.

Burning radiation is absorbed in steel so quickly that steel heats up immediately over its melting point 1585 C and above its boiling point around 3000 C. In pictures down below super hot groups of steel pillars and columns, torn from wall by pressure wave, are sublimized. They change from solid immediately to a vaporized form binding heat as quickly as possible. Even bursts upwards are visible in the picture below, not possible for a gravitational collapse or for cutting charges which are used horizontally.





Storax Sedan 104 Kt shallow underground

In the upper picture the explosion is 100 times stronger than on a down below in theory, but in practice the difference is only 4 times, due to direction of the mini hydrogen bomb.



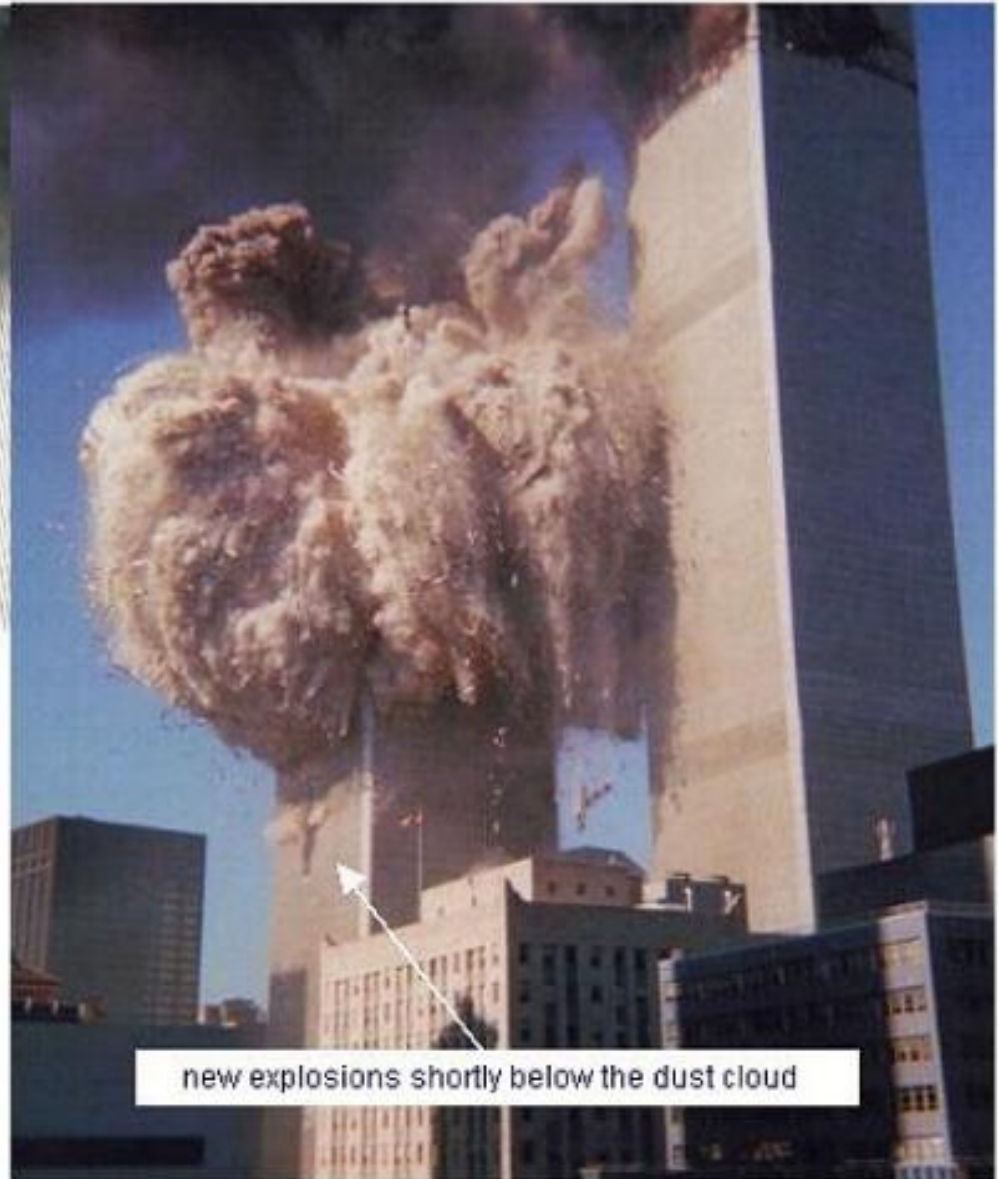
The destruction of the WTC

WTC 2 - new explosions



new explosions below the level of breaking.

On the left image the upper part is a whole piece. Seconds later the tilted position is corrected i.e. the upper part is pulverized. After that the pulverization of the stabile standing trunk from above downwards is going to take place by continuing explosions - without any pressure form above because the upper part has already been pulverized.



new explosions shortly below the dust cloud

In picture on right, the brown shades caused by hydrogen bomb are seen, while the top of the tower that is already collapsing is breaking down and the posture straightens up when the hydrogen bomb pulverized the core and it lost all its resistance. Piles point

the blasts
of cutting charges. ([Gehue plate 12](#))





Steel pillars are turned to dust.

Super hot, sublimating pieces
are not created by many ways.



For comparison pictures from subterranean nuclear explosions where the explosion is blasting onto surface and into air.



Ess1.2 Kt



WTC-2



Banberry 10 Kt underground

Radioactivity in air creates shades of brown (subterranean nuke in picture on the right is 10 times stronger than the mini nuke in left). This is the reason why FBI was not searching the crime scene, ground zeros of nuclear weapons are health risk and belong to FEMA.

[UP](#)

So, what's new in 2015?

Updates 2015, October 22



Have photos and videos of “world leaders” with slitty Reptilian eyes changed our views about what really happened on 9-11-2001?

In my case (S.G.), the answer is, yes.

I have published my opinion, see:

Reptilian Question

<https://archive.org/details/StefanGrossmannReptilianQuestion>

9-11 SCIENCE REPORT

By Dr. Stefan G. E. Grossmann

Updates 2015-10-22

Coming as no surprise to readers of David Icke, the surge of photos and videos since the terror attacks on September 11, 2001 that show “world leaders”, and many other “humans”, who have signs of Reptilian eyes, shapeshift marks on their bodies, Reptilian scales, holographic distortion of their body image, etc. (see my publication linked on the foregoing page) supports the notion that Reptilians might exist.

That new (after 2001) notion is of great importance to solve the riddle of 9-11 (as is a common abbreviation of “terror attacks on September 11, 2001”). Knowledgeable reserachers such as the former German cabinet minister Andreas von Bülow, the investigative journalist Christopher Bollyn, and others have suggested that “the Mossad” (obviously, meaning the Israeli government, and/or its secret service named Mossad) were the top-level perpetrators, and thus the proprietors, of 9-11 and its more than three thousand murders, loss of property, etc.

Really? I still can’t feel comfortable with such a handy answer to the riddle. Ask yourself: How plausible is it that the “Mossad” would have been in a position to stand down the entire U.S. military defence system? I believe to this day that such a proposition is most implausible. How plausible is it that the “Mossad” would have been in a position to muzzle the entire mainstream journalism on the entire planet? Again, I believe to this day that such a proposition is most implausible, not to say outrageous.

After trying hard, and coming up with such a group culprit (and hence, by legal definition, a conspiracy), we have not moved closer to the true answer. It is something different, not the “Mossad”. There may well have been *complicity* by French, Israeli, etc. elements; but I am talking about the top command level, not the, purportedly many, subordinate levels (cell-type).

That aside, this volume deals with “forgotten bombs”, that is, with the internal explosions that brought the Twin Towers in Manhattan down flat into their footprints on Terror Tuesday, 9-11. The findings that I put together in 2004 (see all the above part of this volume) have been well confirmed since then through diligent scientific research (see all the below part of this volume). Perhaps the most original new analysis is by Dmitri Khalezov (below, last item, pp. 297 ff.). Two photos (pp. 345, 346) are new, showing foundations after a large nuclear explosion.

Dr. Stefan Grossmann



Elizabeth “Vatican stooge” Rothschild-Windsor



Zbigniew “security state” Brzezinsky

And when will the truth stare *you* in the eye?

WTC Destruction: An Analysis of Peer Reviewed Technical Literature 2001 — 2012

Timothy E. Eastman, Ph.D. (Geophysics), and Jonathan H. Cole, P.E.

Abstract

The importance of understanding the mechanisms of collapse for the three World Trade Center buildings on September 11, 2001 cannot be over-estimated, for these unusual collapses and their disputed causes raise questions regarding all future steel-frame building design. A literature review was conducted to identify the evolving trend in research results in this area, which have become increasingly diverse over time. Recommendations for further research are presented.

Introduction

Over the past decade there have emerged two primary hypotheses regarding the mechanism of destruction for World Trade Center (WTC) buildings 1, 2 and 7, namely, the official fire-induced Progressive Collapse (PC) versus the alternate Controlled Demolition (CD). The question of which of these two hypotheses is correct is singularly important because its current lack of resolution leaves unmet the following critical needs (assuming PC):

- (1) Thousands of other structures may also be subject to such catastrophic destruction by office fires, and inspections and upgrades based on determination of what caused the WTC buildings to collapse may be needed to ensure public safety;
- (2) Significant structural design analysis tools and computer models need upgrades to account for the potential of such catastrophic destruction;
- (3) major revisions to building codes for high-rise steel-frame buildings are critically needed (Bement, 2002).

Our goals here are to fully document the available peer-reviewed literature on this important question, and to promote more open and in-depth research by a broader community of scholars.

Although much relevant evidence from portions of the events of 9/11 remains unavailable to researchers as well as the general public, substantial evidence is available concerning the destruction of WTC 1, 2 and 7 that is relevant to resolving the key question of PC versus CD. Nevertheless, the diversity and complexity of the 9/11 events make it very difficult for most citizens, and even many researchers, to obtain the quality information needed to address and resolve the above questions. In particular, information provided officially is notoriously incomplete; e.g., the official *9/11 Commission Report* (2004) makes no mention of destruction of the third high-rise steel-frame building, WTC 7. Further, relevant official reports produced by the National Institute of Standards and Technology (NIST) for the Twin Towers are incomplete in that

they stopped their efforts at “collapse initiation” and could not explain total destruction. Finally, the same NIST reports have been surrounded by controversy that remains mostly unreported in mainstream media sources (see peer-reviewed papers referenced herein).

This controversy has been fueled in part because official investigations and reports on this topic have been very tightly controlled and not peer-reviewed.¹ Basic documentation of such work has not been made available to independent researchers in spite of repeated Freedom-of-Information-Act (FOIA) requests; e.g., most of the detailed documentation, coding, methodology and assumptions employed by NIST in their finite element analysis model of WTC 7. Related to these technical impediments to independent research, in addition to essentially no funding for such research, the “conspiracy theorist” or “truther” label has often been used to discourage or truncate debate on many critical questions, leaving the official theory as the default. For the most part, and somewhat understandably, the science and engineering professional communities have stayed on the sidelines, perhaps in part to protect their reputations and in part to avoid putting their federal research grants at risk. This condition of obstructed research continues in spite of the fact that a “conspiracy” by definition is “*an agreement between two or more persons to commit a crime.*” Thus, by definition, both the official PC hypothesis and the alternative CD hypothesis addressed here are necessarily associated with a conspiracy theory of one form or another. Setting such labels aside, the fundamental question remains, “which hypothesis is best supported by the evidence?” Unfortunately, this basic question and its resolution have been systematically subverted for the past decade.

Evaluating the Merits of Competing Hypotheses

Nevertheless, more than a hundred serious and independent researchers have taken up the question and are actively working to examine the available evidence and report their results to the broader research community. The subset of their research work that has been independently evaluated (i.e., peer-reviewed²) and published in scholarly journals, provides a critically important sample set for addressing key questions and, in particular, the following:

Key technical question: What is the mechanism of collapse for WTC 1, 2, and 7?
Was it through Progressive Collapse (PC) or Controlled Demolition (CD)?

We propose that one of the best available solutions to this critical question can be obtained through an evidence-based approach and a concentration on results derived from the available peer-reviewed technical literature. Although peer-reviewed papers are a small subset of the available literature on these topics, they generally (not always) represent higher quality, better argued, and better referenced materials than papers that lack such peer review. Thus, an analysis of the peer-reviewed literature over time should provide an excellent basis for evaluating the merits of the competing hypotheses that are here in question.

We recognize that any conclusions are limited by the necessity for decisions between competing claims and hypotheses within that literature. Further, as stated in a recent study of the National Academy of Sciences, “*Research has deepened knowledge about the fallibility of human decision making, particularly the many cognitive biases to which people are subject.*” For example, “*People have a proclivity to ignore evidence that contradicts their preconceived notions (confirmation bias),*” (NRC, 2012, p. 57).

In scientific practice, a key methodology to compensate for such inevitable fallibility is to reproduce, when possible, the results for oneself. In the present case, the means for reproduction are available. Indeed, **we encourage the reader to personally check results of this analysis of the peer-reviewed technical literature**; e.g., spot checks can be easily done using scholar.google.com.

Resources and Methodology

For this analysis of available peer-reviewed technical literature relevant to the key question above, we have used two major databases, each accessing more than 3500 peer-reviewed journals worldwide:

- (1) Academic Search Complete database, from EBSCO, 1965 to present
(<http://www.ebscohost.com/academic/academic-search-complete>);

This database provides advanced search capability and full-text access for more than 5,100 peer-reviewed journals.

- (2) The Thomson Reuters Web of Science database, similarly, provides advanced search and full-text access for more than 3500 notable peer-reviewed scientific and technical journals, 1956 to present.

In addition to these standard sources, we have searched the contents of a few additional journals which, at this time, are not included in the above databases.

Open Chemical Physics Journal, indexed by six services, among them *Chemical Abstracts*, the premiere world service for chemistry; also *Directory of Open Access Journals (DOAJ)*, *Open J-Gate*, *Genamics JournalSeek*, *MediaFinder®-Standard Periodical Directory*, *Astrophysics Data System (ADS)*.

Open Civil Engineering Journal, indexed in *Scopus*, *Compendex*, *Directory of Open Access Journals (DOAJ)*, *Open J-Gate*, *Genamics JournalSeek*, *MediaFinder®-Standard Periodical Directory*, *PubsHub*, *J-Gate*.

Journal of 9/11 Studies

Both the *Open Chemical Physics Journal* and the *Open Civil Engineering Journal* are open access, online journals of Bentham Open.³ The *Journal of 9/11 Studies* is the primary peer-reviewed venue for the independent 9/11 research community, and has published papers on both sides of this question (e.g., Greening (2006) argues for the PC hypothesis). Since its initiation in 2006, articles published in this journal have always been subject to two independent peer-reviews.⁴ Although papers prior to 2012 are not uniform in format, we have found this journal's reviewing standard to be comparable overall to other journals publishing on this topic.

For completeness, we have also included the *Journal of Debunking 911 Conspiracy Theories*. Even though its submission guidelines make no reference to peer review, the phrase "Peer-Reviewed Papers" appears in its index of papers. Unlike all other journals used for our analysis, this journal's title itself presupposes preferred study outcomes (to which all papers conform), and it did not provide sustained service to its research community (ten papers appeared in 2006, plus only one more in 2007). We encourage readers to judge the quality of peer review from this journal for themselves.

The methodology that we employed in this literature search was as follows:

- Systematic keyword selection based on index terms applied to known publications;
- Comprehensive search yielding 9,856 records, which is the sum of subtotals in columns 1, 3, 4, and 7 of Table 1;
- Clear specification of selection criteria;
- Manual check of all retrieved records (titles and abstracts);
- systematic identification of all cases that meet selection criteria;
- Compilation and recording of all publications meeting selection criteria (see Table 2).

The selection criteria were as follows: (1) paper's title and abstract and, when available, its full-text content must support either the official (PC) hypothesis or the CD hypothesis; and (2) the associated paper must give some specific technical argument on behalf of that claim.

Results of the Literature Search

The search keywords and number of records obtained for the two databases are recorded in Table 1. A larger number of retrieved records were obtained with the EBSCO database because it included more non-technical journals. More specific keywords and search terms would have substantially expedited the searches; however, for this analysis, we considered it a high priority to avoid overlooking any relevant paper. As shown in Table 1, the aggregate number of records evaluated based on the EBSCO Academic Search Complete database searches was 6,404 records and, for the more technically-focused Web of Science database that we used, a total of 3,452 search records were obtained and analyzed.

The primary work in this analysis is that of reading and evaluating all titles and abstracts derived from search results given in Table 1. We effectively carried out our search-and-analysis process three times over: first, using only the EBSCO database for a preliminary study; second, using an independent set of search strategies by co-author Cole (applied to the latest version of EBSCO) to check the first analysis and to identify any additional papers (see "Cole" column in Table 1); and third, using both databases as a double-check and to assure comprehensive search and analysis.

Final results of this search-and-analysis process, using both the EBSCO Academic Search Complete and Thomson Reuters Web of Science databases, are given in Table 2 (presented at the end of this paper). This table provides, in order, each paper's date, title, author(s), journal name, journal volume and issue number. Finally, some notes are given as needed. Among the 9,856 records initially obtained via the keywords given in Table 1, and including papers from the four additional journals discussed above, a total of 84 papers were identified that are relevant to our focus. These papers include four by Cherepanov, who hypothesizes a propagating fracture hypothesis that does not easily fit within the PC/CD categories. In the first column, these papers are designated "F" for the Fracture hypothesis. In some cases, a paper discusses related technical considerations about the towers but does not provide arguments for one of the two hypotheses; these cases are left as a blank in the first column (e.g., Newland, 2002). In some cases, a discussion, closure⁵ or commentary paper (e.g., Sivakumar, Nov. 2003; Gourley, 2007) either replicates arguments given in a previous paper (e.g., Sivakumar, July, 2003), or simply offers commentary on related points, but without arguing (as needed for the second criterion above) for a particular inferred hypothesis (e.g., Gourley, 2007; Flint, 2007). Several closure papers merely

replicate arguments given in their associated base paper. Bazant's original paper of December 2001 was basically replicated, with the same title, in two journals and, with its Addendum of March, 2002, is treated here as simply one paper (Bazant and Zhou, 2002). These latter cases and the closure cases are represented with parentheses and are not here treated as distinct papers.

Table 1. Results of Keyword Search from Two Major Databases.

Keywords	Thomson Reuters Web of Science			EBSCO Academic Search Complete			
	10 Yrs	11 Yrs	Sept. 2011 - Dec. 2012	10 Yrs	11 Yrs	11 Yrs, Searches by Cole	Sept. 2011 - Dec. 2012
Progressive Collapse	1158	1319	193	245	298	427	76
World Trade Center	937	1022	87	4712	4894	6128	321
...collapse	201	212	12	116	118	129	4
...collapse analysis	65	70	6	7	8	7	1
WTC	427	473	52	399	439	659	60
...collapse	113	119	7	52	56	55	5
...mech. of collapse	9	9	0	0	0	81	0
...building 7	9	9	0	2	2	2	0
...demolition	2	2	0	0	0	2	0
Building mech. of collapse	311	368	64	4	5	1	2
World Trade Tower(s)	119	124	6	110	113	116	9
...demolition	0	0	0	1	1	1	0
Twin Tower(s)	90	95	8	413	442	591	53
...collapse	25	25	0	18	19	19	3
...progressive collapse	7	7	0	0	0		0
Totals	3042	3401	410	5883	6191	7922	521
Notes: "..." denotes addition to above keyword; "mech." = "mechanism; Cole's results are based on a newer version of the EBSCO database whereas other EBSCO results were accessed at the Library of Congress.							

After applying these distinctions, a total of 59 distinct papers were identified that met both selection criteria above. These were given a designation (see first column) of either Progressive Collapse (PC) or Controlled Demolition (CD). In many such cases, the paper in question discusses only a mechanism of destruction for WTC 1 or 2. In cases where a paper addresses a mechanism of destruction for WTC 7 as well, the designation "PC/7" or "CD/7" is given.

Summary of Analysis Results

In summary, important insights emerge from this literature search and analysis:

- (1) Within the first ten years after "9/11" (namely September 11, 2001 through September 11, 2011), the mainstream peer-reviewed literature, worldwide, contained no paper on WTC 7 that concludes with the Progressive Collapse (PC) hypothesis (Note: Two such PC papers appear in the short-lived *Journal of Debunking 9/11 Conspiracy Theories*);

- (2) Within the first ten years, there are 31 distinct CD papers (i.e., arguing for the Controlled Demolition hypothesis, including 14 that address WTC 7) versus 19 distinct PC papers (i.e., arguing for Progressive Collapse, including only 2 as noted immediately above that address WTC 7);
- (3) Overall, from 9/11/01 through 12/31/2012, there are 34 distinct CD papers versus 25 PC papers; among these, 15 of the CD papers address WTC 7 whereas only 4 PC papers do so, again indicating overall the importance of the CD hypothesis;
- (4) Although most CD papers (and one PC paper) derive from the *Journal of 9/11 Studies*, six qualified and distinct CD papers appear in mainstream journals.

Conclusions

- What is most striking about our results is the fact that there is serious disagreement as to how the WTC structures fell on September 11, 2001. While precise sequences of every building component failure cannot be determined, the overall basic mechanism of destruction (i.e. some type of fire-induced natural gravitational collapse (PC), or some type of planned demolition CD) is clearly in dispute. There is no consensus. At this point, almost 12 years later, *there should not be any significant disagreement about such a fundamental issue as to how three buildings were destroyed so completely* given the magnitude of the event, the implications of the event, and repercussions for existing and future structural design.
- We note that in the early years, from 2001 to 2005, essentially all published papers supported the official narrative of some type of progressive collapse mechanism. Subsequent years, however, have generated numerous papers challenging the official narrative, and *a substantial number of peer-reviewed papers were published concluding that the failures were due to demolition.*
- The vast majority of independent investigations about other catastrophes narrow down and converge on the solution as more and better information is obtained. Theories that do not, or cannot, explain the additional information are discarded, resulting in a theory that earns general scientific consensus. Precisely the opposite has happened over the past decade with the study of how the WTC structures fell. That is, the more information that has been unearthed, the more unanswered questions have arisen with the official hypothesis, with more people questioning the initial theory. Thus, the demolition hypothesis is strengthened, and the hypothesis of fire-induced collapse is further weakened. Therefore, rather than converging on an answer, the study of 9/11 diverges over time as the scientific rift has grown and the early consensus for the official story is undermined.
- If it is true that steel-frame buildings can collapse from fire alone, it is crucial for owners of existing structures and insurers to understand the risk of a sudden fire-induced collapse so that structural repairs and risk adjustments can be factored in. Given the official story, it is remarkable how little insurance premiums, or even design parameters and building construction codes,⁶ have been modified (if at all) to address the possibility of catastrophic fire-induced

progressive collapse. The fact that they have not been modified indicates that insurance companies do not accept the PC hypothesis.

- Given the fact that before September 11, 2001 no high-rise steel-frame building has ever collapsed from fire alone (Taylor, 2011), extraordinary claims require extraordinary proof. The NIST Reports did not address the total collapse of the Twin Towers, truncating their study at “collapse initiation.” *Overall, our peer-reviewed literature results collectively yield a very strong prima facie argument for CD.*
- Other than two papers appearing in the *Journal of Debunking 9/11 Conspiracy Theories*, the only papers that address WTC 7 and argue for PC are brief summaries by McAllister et al. (2012) of the non-peer-reviewed NIST report on WTC 7 (NIST, 2008). McAllister, it should be noted, was herself one of the co-project leaders for the NIST report. Thorough critiques of this paper and associated results of the NIST report are given in Legge (2009) and Brookman (2012).
- When applying the scientific method, independent confirmation of an unexpected result is a very strong form of support. Such independent confirmation occurred twice with regard to 9/11 dust contamination. First, Harrit et al. (2009) published detailed evidence for active thermitic material in relevant dust samples, thus supporting explosive demolition. This paper also appears to be one of the most extensively researched and professionally written of all 84 papers appearing in Table 2. Entirely independent of Harrit’s work, Wu et al. (2010) published a case report of lung disease in WTC responders. They reported an “unexpected” discovery of extremely fine carbon (nanotube) structures in responder lung tissue, which are associated with dust, thus independently confirming Harrit et al., who found the same such structures in 9/11 dust samples.
- Well-qualified scientists, including physicists, have pointed out inconsistencies and violations of basic physics contained in many PC papers. For example, Dr. Crockett Grabbe, Applied Physics Ph.D. from Caltech, has raised many such critical problems (see Grabbe, 2007, 2010, 2012). Physics teacher David Chandler and co-author Jonathan Cole also document many basic physics issues at their Website *9/11SpeakOut.org*. And Architects & Engineers for 9/11 Truth (www.ae911truth.org), as of April, 2013, is comprised of 1,877 certified professionals who reject the PC hypothesis and jointly call for a new, independent investigation.
- The integrity of science itself is compromised when an argument that proceeds from authority alone is given precedence over the presentation of relevant, demonstrable facts (e.g., more than a hundred documented reports of explosions (MacQueen, 2012)), or even basic laws of physics (e.g., violations of conservation of energy and momentum, see Grabbe (2012)).
- Compiling all relevant peer-reviewed publications on this focused topic, as done here, enables a systematic, integrated analysis to address our key question in a way analogous to how Paul Thompson’s *9/11 Timeline* has served so effectively to help integrate a large range of 9/11-related issues (Thompson, 2004).⁷
- The first submitted draft paper on the mechanism of collapse is that by Bazant, submitted September 13, 2001 (see first entry of Table 2, including its footnote). It is our professional opinion that, by any measure, a responsible, professional research paper on this complex event

that was not begun until September 11 could not have been completed and submitted by September 13.

Recommendations

- Greater recognition is needed for the importance of evidence-based scholarly analyses (e.g., MacQueen's detailed analysis of eye-witness accounts of explosions), in addition to more in-depth technical analyses and scholarly works that reveal the broader context of 9/11 events;
- We stress the importance of scientific, technical and scholarly research on these questions, followed up with peer-reviewed publications; lacking this, the discussion tends to be dominated by essays driven mostly by advocacy-based thinking. In contrast, the best of science is evidence-based with systematic testing of alternative hypotheses, falsification, and model-making (where appropriate);
- In contrast to current conditions that have suppressed research and dialogue on these world-changing collapses, achieving improved understanding of these critical questions requires transparency, avoidance of cognitive bias (especially confirmation bias), peer-review, checks and balances, and efforts to reduce research misconduct.⁸

Challenge to the Reader

Although every reasonable effort was made to locate all relevant papers, we fully acknowledge that some papers or publications meeting the criteria herein may have been overlooked in our search. Accordingly we challenge the reader (especially professional engineers and scientists) to leverage the resources referenced in Table 2, and then perform for themselves such a synthesis and, if appropriate, submit the results of such a study to a peer-reviewed journal, especially if they conflict with our conclusions.

Such a check simply requires access to at least one of the relevant databases, which are available through most major universities and research libraries. Indeed, anyone can do spot checks using Google Scholar (scholar.google.com); e.g., keywords "controlled demolition" WTC returns 436 results, and "progressive collapse" WTC returns 920 results.

Acknowledgments

We are thankful for all the independent researchers throughout the years who have courageously stepped forward providing evidence, research, testing and analysis concerning this catastrophic event, especially when such works contradicted official claims. In particular, we gratefully acknowledge detailed technical and editing inputs provided by David Ray Griffin, Tod Fletcher and two independent reviewers. Finally, we respectfully acknowledge the open access available through the internet and public libraries, both critical infrastructures for democracy, which makes this research possible.

Table 2. Peer-reviewed Publications Focused on Mechanism of Collapse for WTC 1, 2, and 7					
Collapse Mech.⁹	Date (mm/yy)	Title	Author(s)	Publication	Vol/Issue
(PC)	12/01	Why did the WTC collapse? - Simple Analysis	Bazant, Zhou	Int'l J. Struct. Stab. Dyn.	Vol. 1, No. 4, 603-615 ¹⁰
PC	12/01	Why did the WTC collapse? Science, engineering, and speculation	Eagar, Musso	J. of Materials Science (JOM)	Vol. 53, No. 12, 8-11 ¹¹
PC	01/02	Why did the WTC collapse? - Simple Analysis	Bazant, Zhou	J. Engineering Mechanics (JEM)	Vol. 128, No. 1, 2-6 ¹²
(PC)	03/02	Addendum to "Why did the WTC..."	Bazant, Zhou	JEM	Vol. 128, No. 3, 369-370
—	07/02	Could the WTC have been modified to prevent its collapse?	Newland, Cebon	JEM	Vol. 128, No. 7, 795-800 ¹³
PC	05/02	Dissecting the Collapses	ASCE Committee	Civil Engineering	Vol. 72, Issue 5 ¹⁴
PC	10/02	A suggested cause of the fire-induced collapse of the WTC	Quintiere, di Marzo, Becker	Fire Safety Journal	Vol. 37, Issue 7, p. 707
—	07/03	Discussion [see above; Bazant and Zhou, 2002]	Sivakumar	JEM	Vol. 128, Issue 7, 839 ¹⁵
(PC)	07/03	Closure [see above; Bazant and Zhou, 2002]	Bazant, Zhou	JEM	July 2003, 839-840
PC	10/03	How did the WTC towers collapse: a new theory	Usmani, Chung, Torero	Fire Safety Journal	Vol. 38, Issue 6, 501-533 ¹⁶
—	10/03	A suggested cause of the fire-induced collapse of the WTC	Lane	Fire Safety Journal (letter)	Vol. 38, Issue 6, 589-591 ¹⁷
—	11/03	Discussion [see above; Newland, 2002]	Sivakumar	JEM	Nov. 2003, p. 1360
—	11/03	Closure [see above; Newland, 2002]	Newland, Cebon	JEM	Nov. 2003, 1360-1361
PC	05/04	Progressive analysis procedure for progressive collapse	Marjanishvili	JEM	May 2004, 79-85 ¹⁸
	10/04	Use of high-efficiency energy absorbing device to arrest Progressive collapse of tall building	Zhou, Yu	JEM	Oct. 2004, 1177-1187 ¹⁹
PC	01/05	Structural responses of WTC under aircraft attacks	Omika et al.	J. Structural Eng.	Jan. 2005, 6-15 ²⁰
PC	06/05	Stability of the WTC twin towers structural frame in multiple floor fires	Usmani	JEM	June 2005, 654-657 ²¹
F	2005	September 11 and fracture mechanics - a retrospective	Cherepanov	Int'l Journal of Fracture	132: L25-L26 ²²
—	06/06	WTC 7: A short computation	Kuttler	J. 9/11 Studies	Vol. 1, 1-3 ²³
CD/7	06/06	9/11 - Evidence for controlled demolition: a short list of observations	Legge	J. 9/11 Studies	Vol. 1, 4-16
CD/7	06/06	9/11 - Evidence suggests complicity: Inferences from actions	Legge	J. 9/11 Studies	Vol. 1, 17-27

Table 2. Peer-reviewed Publications Focused on Mechanism of Collapse for WTC 1, 2, and 7					
Collapse Mech.⁹	Date (mm/yy)	Title	Author(s)	Publication	Vol/Issue
—	06/06	Momentum transfer analysis of the collapse of the upper storeys of WTC 1	Ross	J. 9/11 Studies	Vol. 1, 32-39
CD/7	08/06	What is 9/11 truth? - the first steps	Ryan	J. 9/11 Studies	Vol. 2, 1-6
PC	08/06	To whom it may concern	Greening	J. 9/11 Studies	Vol. 2, 7-12 ²⁴
—	08/06	Reply to Dr. Greening [see above; Greening, 2006]	Ross	J. 9/11 Studies	Vol. 2, 13-18 ²⁵
CD/7	08/06	Intersecting facts and theories on 9/11	Firmage	J. 9/11 Studies	Vol. 2, 19-47 ²⁶
CD	08/06	118 Witnesses: The firefighters' testimony to explosions in the twin towers	MacQueen	J. 9/11 Studies	Vol. 2, 47-106
CD	08/06	NIST data disproves collapse theories based on fire	Legge	J. 9/11 Studies	Vol. 2, 107-121
F	08/06	Mechanics of the WTC collapse	Cherepanov	Int'l Journal of Fracture	141: 287-289 ²⁷
CD/7	09/06	Why indeed did the WTC buildings completely collapse?	Jones	J. 9/11 Studies	Vol. 3, 1-47
CD	09/06	Seismic proof - 9/11 was an inside job	Furlong, Ross	J. 9/11 Studies	Sept. 2006, 1-11
CD/7	11/06	9/11 - acceleration study proves explosive demolition	Legge	J. 9/11 Studies	Nov. 2006, 1-5
CD	12/06	The NIST WTC investigation - how real was the simulation?	Douglas	J. 9/11 Studies	Vol. 6, 1-28
F	01/07	Progressive collapse of towers: the resistance effect	Cherepanov, Esparragoza	Int'l Journal of Fracture	143: 203-206 ²⁸
CD	01/07	Statement regarding thermite, part 1	Moore	J. 9/11 Studies	Vol. 7, 1-9
—	02/07	The overwhelming implausibility of using directed energy beams to demolish the WTC towers	Jenkins	J. 9/11 Studies	Feb. 2007, 1-31
PC	03/07	Mechanics of progressive collapse: learning from WTC and building demolitions	Bazant, Verdure	JEM	March 2007, 308-319 ²⁹
CD/7	04/07	Jones v. Robertson, a physicist and a structural engineer debate the controlled demolition of the World Trade Center	Roberts	J. 9/11 Studies	April 2007, 1-37
CD/7	04/07	9/11 and the twin towers: Sudden collapse initiation was impossible	Morrone	J. 9/11 Studies	April 2007, 38-43
—	05/07	NIST and Dr. Bazant - simultaneous failure	Ross	J. 9/11 Studies	May 2007, 39-44 ³⁰
CD/7	05/07	The sustainability of the controlled demolition hypothesis for destruction of the twin towers	Szamboti	J. 9/11 Studies	May 2007, 1-11
CD/7	05/07	Revisiting 9/11/2001 - applying the scientific method	Jones	J. 9/11 Studies	May 2007, 55-82
PC/7	05/07	Good Science and 9-11 Demolition Theories	Mike King	JOD 911 Conspiracy	Vol. 1, Issue 2, Sept. 2006

Table 2. Peer-reviewed Publications Focused on Mechanism of Collapse for WTC 1, 2, and 7					
Collapse Mech.⁹	Date (mm/yy)	Title	Author(s)	Publication	Vol/Issue
				Theories	(updated 13 May 2007)
CD/7	06/07	Some physical chemistry aspects of thermite...system as applied to the demise of three WTC buildings on 9/11/2001	Lobdill	J. 9/11 Studies	June 2007, 1-15
CD/7	07/07	High velocity bursts of debris from point-like sources in the WTC towers	Ryan	J. 9/11 Studies	July 2007, 1-8
CD	08/07	Direct evidence for explosions: flying projectiles and widespread impact damage	Grabbe	J. 9/11 Studies	Aug. 2007, 1-7
CD/7	09/07	9/11 - Proof of explosive demolition without calculations	Legge	J. 9/11 Studies	Sept. 2007, 1-8
—	10/07	The great steel caper: DEW - demolition contrary evidence	Jenkins	J. 9/11 Studies	Oct. 2007, 1-63
—	11/07	Appeal filed with NIST	Gourley et al.	J. 9/11 Studies	Nov. 2007, 1-16
—	12/07	Analysis of the mass and potential energy of WTC tower 1	Urich	J. 9/11 Studies	Dec. 2007, 1-43
CD	12/07	9/11 and the twin towers: Sudden collapse initiation was impossible	Legge, Szamboti	J. 9/11 Studies	Dec. 2007, 1-3
—	12/07	Structural response of tall buildings to multiple floor fires	Flint et al.	J. Structural Eng.	Dec. 2007, 1719-1732 ³¹
CD/7	01/08	Extremely high temperatures during the WTC destruction	Jones et al.	J. 9/11 Studies	Jan. 2008, 1-11
PC	01/08 02/08	Engineering perspective of the collapse of WTC-1	Irfanoglu, Hoffmann	J. Perf. of Constructed Fac.	Vol. 22, No. 1, 62-67 ³²
PC	02/08	Progressive collapse of the WTC: simple analysis	Seffen	JEM	Feb. 2008, 125-132 ³³
CD	04/08	Fourteen points of agreement with official government reports on the WTC destruction	Jones et al.	Open Civil Eng. J.	Vol. 2, 35-40
PC/7	05/08	On Debunking 9/11 Debunking	Ryan Mackey	JOD 911 Conspiracy Theories	Vol. 1, Issue 4, 31 Aug. 2007 (updated 24 May 2008)
CD	06/08	9/11 and probability theory	Legge	J. 9/11 Studies	June 2008, 1-4
CD	07/08	The top ten connections between NIST and nano-thermites	Ryan	J. 9/11 Studies	July 2008, 1-12
F	07/08	Collapse of towers as applied to September 11 events	Cherepanov	Materials Science	Vol. 44, No. 4 ³⁴
PC	10/08	Discussion [see above; Bazant, 2007]	Szuladzinski	JEM	Oct. 2008, 913-915
CD	10/08	Discussion	Gourley	JEM	Oct. 2002, 915-916 ³⁵
(PC)	10/08	Closure [see above; Bazant, 2007]	Bazant, Le	JEM	Oct. 2008, 916-923
PC	10/08	What did and did not cause collapse	Bazant et al.	JEM	Oct. 2008,

Table 2. Peer-reviewed Publications Focused on Mechanism of Collapse for WTC 1, 2, and 7					
Collapse Mech.⁹	Date (mm/yy)	Title	Author(s)	Publication	Vol/Issue
		of WTC twin towers in New York?			892-906
CD	01/09	The missing jolt: A simple refutation of the NIST-Bazant collapse hypothesis	MacQueen, Szamboti	J. 9/11 Studies	Vol. 24, 1-27
CD	02/09	Active thermitic material discovered in dust from the 9/11 WTC catastrophe	Harrit et al.	Open Chem. Phys. J.	Vol. 2, 7-31 ³⁶
CD/7	05/09	Controlled demolition at the WTC: An historical examination of the case	Legge	J. 9/11 Studies	May 2009, 1-5
PC	07/09 08/09	Dominant factor in the collapse of WTC-1	Miamis et al.	J. Perf. of Constructed Fac.	Vol. 23, No. 4, 203-208
CD	02/10	Destruction of the WTC north tower and fundamental physics	Chandler	J. 9/11 Studies	Feb. 2010, 1-17
CD	03/10	Falsifiability and the NIST WTC report: A study in theoretical adequacy	Anonymous, Legge	J. 9/11 Studies	March 2010, 1-20
CD	04/10	Discussion [see above; Seffen, 2008]	Grabbe	JEM	Vol. 136, No. 4, 538-539 ³⁷
PC	06/10	How fast does a building fall?	Denny	European J. of Physics	Vol. 31, 943-948 ³⁸
CD	07/10	Discussion [see above; Bazant et al. 2008]	Bjorkman	JEM	Vol. 136, No. 7, 933-934
(PC)	07/10	Closure	Bazant et al.	JEM	Vol. 136, No. 7, 934-935
PC	01/11	Why the observed motion history of WTC towers is smooth	Le, Bazant	JEM	Vol. 137, No. 1, 82-84
PC/7	01/12	Analysis of structural response of WTC 7 to fire and sequential failures leading to collapse	McAllister et al.	J. Structural Eng.	Vol. 138, No. 1, 109-117 ³⁹
PC	01/12	Using numerical simulations and engineering reasoning under uncertainty: studying the collapse of WTC-1	Irfanoglu	Computer-Aided Civil and Infrastructure Eng.	Vol. 27, No. 1, 65-76
PC	07/12	Temporal considerations in collapse of WTC towers	Szuladzinski	Int'l J. Struct. Eng.	Vol. 3, No. 3, 189-207
PC	08/12	Structural analysis of impact damage WTC 1, 2, and 7	McAllister et al.	Fire Technology	Vol. 49, No. 3, 1-31
—	10/12	A discussion of “Analysis of structural response of WTC 7...” (see McCallister et al. above, Jan. 2012)	Brookman	J. 9/11 Studies	Oct. 2012, Vol. 33
CD	10/12	Discussion [see above; Bazant, 2011]	Grabbe	JEM	Vol. 138, No. 10, 1298-1300
PC	10/12	Closure [see above; Bazant, 2012]	Le, Bazant	JEM	Vol. 138, No. 10, 1300-1301
CD	11/12	Were explosives the source of the seismic signals emitted from New York on September 11, 2001?	Rousseau	J. 9/11 Studies	Vol. 34, 1-23

Table 2. Peer-reviewed Publications Focused on Mechanism of Collapse for WTC 1, 2, and 7					
Collapse Mech.⁹	Date (mm/yy)	Title	Author(s)	Publication	Vol/Issue
PC	12/12	Equation of motion governing the dynamics of vertically collapsing buildings.	Pesce	JEM	Vol. 138, No. 12, 1420-1421

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ENDNOTES

¹ On December 16, 2004, the Office of Management and Budget (OMB) formally issued its “Final Information Quality Bulletin for Peer Review.” Section II of the Bulletin “*requires each agency to subject “influential” scientific information to peer review prior to dissemination.*” Official reports on the destruction of the WTC buildings (NIST, 2012) were among the most “influential” such reports to appear in the last decade and yet, contrary to requirements of this OMB Bulletin, they were not peer reviewed.

² Scholarly peer review is the process of subjecting research papers to critical analysis by experts in the same or related field to help enhance the quality, value and objectivity of any final publication (see “Peer review” in Wikipedia.org). With the exception of the *Journal of Debunking 9/11 Conspiracy Theories*, journals included in our database represent publication venues that are recognized by their associated research communities as providing a valuable, and sustained peer-reviewed service.

³ The online journals of Bentham Open are described at <http://www.benthamscience.com>.

⁴ Information on the Journal of 9/11 Studies is available at its website (<http://www.journalof911studies.com>), and confirmed by co-editor K. Ryan (private communications, 2013).

⁵ JEM author guidelines provide for the submission of both Discussion papers and a final Closure paper by the original author(s), both limited to 2000 words.

⁶ Chemist Kevin Ryan (2012) has shown that building code changes, traceable to basic causes cited by NIST for the destruction of WTC buildings, have never been adopted, whether by the international building community, or even New York City.

⁷ The History Commons website is an experiment in open-content civic journalism (www.historycommons.org), providing dynamic timelines with summaries of over twenty thousand events.

⁸ In considerable detail, David Ray Griffin has shown that “the NIST report on WTC 7 should be exposed by the scientific community for committing scientific fraud in the strict sense.” (Griffin, 2010)

⁹ PC = Progressive Collapse hypothesis; CD = Controlled Demolition hypothesis; F = Fracture wave theory; “7” added for papers applying process to WTC 7; (PC) or (CD) denotes papers not treated as distinct papers.

¹⁰ Submitted September 13, 2001 as stated at bottom of first page; expanded version submitted to JEM on September 22.

¹¹ Claims steel “experienced temperatures” above 750 degrees C (inconsistent with later results).

¹² Simple 1D model (same as Dec. 2001 paper but in new venue; see also 03/02 Addendum).

¹³ Simply presumes PC without arguing for it; paper is about adding energy-absorbing collapse barriers.

¹⁴ Basically, a Civil Engineering Committee call for more study; notes no prior case of such collapse.

¹⁵ Essentially argues for PC but refers to it as “pancaking.”

¹⁶ Applies a simple finite element analysis model.

¹⁷ Basically assumes PC without arguing for it; calls for further investigation, including controlled demolition (CD).

¹⁸ Excellent summary of PC hypothesis, which is simply assumed. Focuses on describing four PC procedures; however, does not specifically state that PC applies to the WTC case.

¹⁹ Does not address cause of collapse (p.1178).

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- ²⁰ Uses LS-DYNA computer program; presumes PC without arguing for it.
- ²¹ Seriously qualifies proposed mechanism in introduction.
- ²² Fracture wave theory (not PC); full text at www.genadycherepanov.com.
- ²³ CD hypothesis not specifically stated but clearly implied.
- ²⁴ Supports possibility of gravity-only collapse, but does not specifically claim “PC” hypothesis.
- ²⁵ Denies Greening’s claim of gravity-only collapse; CD conclusion implied, consistent with Furlong and Ross (2006).
- ²⁶ CD hypothesis not specifically stated but clearly implied.
- ²⁷ This fracture wave theory results in predicted collapse times much longer than actual fall times.
- ²⁸ Resistance added to fracture wave theory.
- ²⁹ As in previous work, uses a simple one-dimensional (1D) model.
- ³⁰ Ross here focuses on critique of PC hypothesis, but CD clearly implied by context of this critique and later paper by Furlong and Ross (2006).
- ³¹ Significant qualifications given; results applied only indirectly to WTC.
- ³² Requires core temperatures to get above 700 degrees C. (inconsistent with later results).
- ³³ See critique by Grabbe (April, 2010).
- ³⁴ Refutes PC hypothesis and advances hybrid model.
- ³⁵ Refutes all basic claims of Bazant’s 2007 paper.
- ³⁶ Confirms CD hypothesis using multi-instrument laboratory analyses of dust samples with clear provenance.
- ³⁷ Refutes all basic claims of Seffen (2008); emphasizes inadequacies of 1D models using by both Seffen and Bazant.
- ³⁸ Uses simple 1D model and presumes “natural pancake collapse,” which is inconsistent with basic observations.
- ³⁹ Provides simply a review of 2008 NIST study results; no new results are presented.

Active Thermitic Material Discovered in Dust from the 9/11 World Trade Center Catastrophe

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Abstract: We have discovered distinctive red/gray chips in all the samples we have studied of the dust produced by the destruction of the World Trade Center. Examination of four of these samples, collected from separate sites, is reported in this paper. These red/gray chips show marked similarities in all four samples. One sample was collected by a Manhattan resident about ten minutes after the collapse of the second WTC Tower, two the next day, and a fourth about a week later. The properties of these chips were analyzed using optical microscopy, scanning electron microscopy (SEM), X-ray energy dispersive spectroscopy (XEDS), and differential scanning calorimetry (DSC). The red material contains grains approximately 100 nm across which are largely iron oxide, while aluminum is contained in tiny plate-like structures. Separation of components using methyl ethyl ketone demonstrated that elemental aluminum is present. The iron oxide and aluminum are intimately mixed in the red material. When ignited in a DSC device the chips exhibit large but narrow exotherms occurring at approximately 430 °C, far below the normal ignition temperature for conventional thermite. Numerous iron-rich spheres are clearly observed in the residue following the ignition of these peculiar red/gray chips. The red portion of these chips is found to be an unreacted thermitic material and highly energetic.

Keywords: Scanning electron microscopy, X-ray energy dispersive spectroscopy, Differential scanning calorimetry, DSC analysis, World Trade Center, WTC dust, 9/11, Iron-rich microspheres, Thermite, Super-thermite, Energetic nanocomposites, Nano-thermite.

INTRODUCTION

The destruction of three skyscrapers (WTC 1, 2 and 7) on September 11, 2001 was an immensely tragic catastrophe that not only impacted thousands of people and families directly, due to injury and loss of life, but also provided the motivation for numerous expensive and radical changes in domestic and foreign policy. For these and other reasons, knowing what really happened that fateful day is of grave importance.

A great deal of effort has been put forth by various government-sponsored and -funded investigations, which led, in large part, to the reports released by FEMA [1] and NIST [2]. Other studies of the destruction have been less well

publicized but are no less important to the outstanding obligation that remains to the victims of that tragedy, to determine the whole truth of the events of that day [3-10]. A number of these studies have appropriately focused attention on the remaining physical material, and on available photographs and video footage, as sources of evidence still in public hands, relating to the method of destruction of the three skyscrapers.

The collapses of the three tallest WTC buildings were remarkable for their completeness, their near free-fall speed [11] their striking radial symmetry [1, 12] and the surprisingly large volume of fine toxic dust [13] that was generated. In order to better understand these features of the destruction, the authors initiated an examination of this dust. In June 2007, Dr. Steven Jones observed distinctive bi-layered chips, with both a red and a gray layer, in a sample of the WTC dust. Initially, it was suspected these might be dried paint chips, but after closer inspection and testing, it was shown that this was not the case. Further testing was then performed on the red/gray chips in an attempt to ascertain their compo-

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sition and properties. The authors also obtained and examined additional samples of WTC dust which had been collected by independent observers on, or very soon after, 9/11. All of the samples examined contained these very small, peculiar red/gray chips. Previous studies discussing observations of the WTC dust include reports by the RJ Lee Company [14], the U.S. Geological Survey (USGS) [15], McGee *et al.* [13] and Lioy *et al.* [16]. Some of these studies confirmed the finding of iron-rich microspheres, which are also peculiar [5, 8, 11, 13-15] but the red/gray chips analyzed in this study have apparently not been discussed in previously published reports. It is worth emphasizing that one sample was collected about ten minutes after the collapse of the second Tower, so it cannot possibly have been contaminated by clean-up operations [17].

MATERIALS AND METHODS

1. Provenance of the Samples Analyzed for this Report

In a paper presented first online in autumn 2006 regarding anomalies observed in the World Trade Center destruc-

tion [6], a general request was issued for samples of the WTC dust. The expectation at that time was that a careful examination of the dust might yield evidence to support the hypothesis that explosive materials other than jet fuel caused the extraordinarily rapid and essentially total destruction of the WTC buildings.

It was learned that a number of people had saved samples of the copious, dense dust, which spread and settled across Manhattan. Several of these people sent portions of their samples to members of this research group. This paper discusses four separate dust samples collected on or shortly after 9/11/2001. Each sample was found to contain red/gray chips. All four samples were originally collected by private citizens who lived in New York City at the time of the tragedy. These citizens came forward and provided samples for analysis in the public interest, allowing study of the 9/11 dust for whatever facts about the day might be learned from the dust. A map showing the locations where the four samples were collected is presented as Fig. (1).



Fig. (1). Map showing collection locations of dust samples analyzed in this study with respect to the location of the WTC complex (marked area near location 1). 1: MacKinlay (113 Cedar St./110 Liberty St); 2: Delessio/Breidenbach (Brooklyn Bridge); 3: Intermont (16 Hudson St); 4: White (1 Hudson St). (Base map courtesy of <http://www.openstreetmap.org>; copyright terms at <http://creativecommons.org/licenses/by-sa/2.0/>).

The earliest-collected sample came from Mr. Frank Delessio who, according to his videotaped testimony [17], was on the Manhattan side of the Brooklyn Bridge about the time the second tower, the North Tower, fell to the ground. He saw the tower fall and was enveloped by the resulting thick dust which settled throughout the area. He swept a handful of the dust from a rail on the pedestrian walkway near the end of the bridge, about ten minutes after the fall of the North Tower. He then went to visit his friend, Mr. Tom Breidenbach, carrying the dust in his hand, and the two of them discussed the dust and decided to save it in a plastic bag. On 11/15/2007, Breidenbach sent a portion of this dust to Dr. Jones for analysis. Breidenbach has also recorded his testimony about the collection of this dust sample on videotape [17]. Thus, the Delessio/Breidenbach sample was collected about ten minutes after the second tower collapsed. It was, therefore, definitely not contaminated by the steel-cutting or clean-up operations at Ground Zero, which began later. Furthermore, it is not mixed with dust from WTC 7, which fell hours later.

On the morning of 9/12/2001, Mr. Stephen White of New York City entered a room in his apartment on the 8th floor of 1 Hudson Street, about five blocks from the WTC. He found a layer of dust about an inch thick on a stack of folded laundry near a window which was open about 4 inches (10 cm). Evidently the open window had allowed a significant amount of dust from the WTC destruction the day before to enter the room and cover the laundry. He saved some of the dust and, on 2/02/2008, sent a sample directly to Dr. Jones for analysis.

Another sample was collected from the apartment building at 16 Hudson Street by Mr. Jody Intermont at about 2 pm on 9/12/2001. Two small samples of this dust were simultaneously sent to Dr. Jones and to Kevin Ryan on 2/02/2008 for analysis. Intermont sent a signed affidavit with each sample verifying that he had personally collected the (now-split) sample; he wrote:

"This dust, which came from the 'collapsed' World Trade Center Towers, was collected from my loft at the corner of Reade Street and Hudson Street on September 12, 2001. I give permission to use my name in connection to this evidence". [Signed 31 January 2008 in the presence of a witness who also signed his name].

On the morning of 9/11/2001, Ms. Janette MacKinlay was in her fourth-floor apartment at 113 Cedar St./110 Liberty St. in New York City, across the street from the WTC plaza. As the South Tower collapsed, the flowing cloud of dust and debris caused windows of her apartment to break inward and dust filled her apartment. She escaped by quickly wrapping a wet towel around her head and exiting the building. The building was closed for entry for about a week. As soon as Ms. MacKinlay was allowed to re-enter her apartment, she did so and began cleaning up. There was a thick layer of dust on the floor. She collected some of it into a large sealable plastic bag for possible later use in an art piece. Ms. MacKinlay responded to the request in the 2006 paper by Dr. Jones by sending him a dust sample. In No-

vember 2006, Dr. Jones traveled to California to visit Ms. MacKinlay at her new location, and in the company of several witnesses collected a second sample of the WTC dust directly from her large plastic bag where the dust was stored. She has also sent samples directly to Dr. Jeffrey Farrer and Kevin Ryan. Results from their studies form part of this report.

Another dust sample was collected by an individual from a window sill of a building on Potter Street in NYC. He has not given permission for his name to be disclosed, therefore his material is not included in this study. That sample, however, contained red/gray chips of the same general composition as the samples described here.

2. Chip Size, Isolation, and Examination

For clarification, the dust samples collected and sent to the authors by Ms. Janette MacKinlay will be sample 1; the sample collected by Mr. Frank Delessio, or the Delessio/Breidenbach sample, will be sample 2; the sample collected by Mr. Jody Intermont will be sample 3; and the sample collected by Mr. Stephen White will be sample 4. The red/gray chips are attracted by a magnet, which facilitates collection and separation of the chips from the bulk of the dust. A small permanent magnet in its own plastic bag was used to attract and collect the chips from dust samples. The chips are typically small but readily discernible by eye due to their distinctive color. They are of variable size with major dimensions of roughly 0.2 to 3 mm. Thicknesses vary from roughly 10 to 100 microns for each layer (red and gray). Samples of WTC dust from these and other collectors have been sent directly from collectors to various scientists (including some not on this research team) who have also found such red/gray chips in the dust from the World Trade Center destruction.

An FEI XL30-SFEG scanning electron microscope (SEM) was used to perform secondary-electron (SE) imaging and backscattered electron (BSE) imaging. The SE imaging was used to look at the surface topography and porosity of the red/gray chips, while the BSE imaging was used to distinguish variations in average atomic number, Z . The microscope was also equipped with an EDAX X-ray energy dispersive spectrometry (XEDS) system. The XEDS system uses a silicon detector (SiLi) with resolution better than 135 eV. The spectrum resolution was set to 10 eV per channel. Operating conditions for the acquired XEDS spectra were 20 keV beam energy (unless otherwise specified) and 40-120 second acquisition time (livetime). XEDS maps were acquired using the same system at a beam energy of 10 keV.

For general surface analysis in the SEM, dust samples were mounted to carbon conductive tabs. The samples were left unwashed and uncoated unless otherwise specified. In order to more closely observe the characteristics of the red and gray layers, and to eliminate the possibility of surface contamination from other dust particles, several red/gray chips from each of the four WTC dust samples were fractured. The clean, cross-section surfaces were then studied by BSE imaging and XEDS.

Some samples were also tested in a differential scanning calorimeter (Netzsch DSC 404C) to measure heat flow into or out of the red/gray chips. The DSC tests were conducted with a linear heating rate of 10 °C per minute up to a temperature of 700 °C. During heating, the samples were contained in alumina pans and air was allowed to flow at 55 milliliters per minute during the heating. The plots were generated by acquiring data points at a rate of 20 points per °C or 200 points per minute. The equipment was calibrated to display the data in watts per gram. The plots were set to display positive heat flow out of the sample such that exothermic behavior of the sample would yield a peak and endothermic behavior a trough.

The dust samples were also examined by visible-light microscopy (VLM) through a Nikon Epiphot 200 stereomicroscope, an Olympus BX60 stereomicroscope and a Nikon Labophot microscope and camera.

RESULTS

1. Characterization of the Red/Gray Chips

Red/gray chips were found in all of the dust samples collected. An analysis of the chips was performed to assess the similarity of the chips and to determine the chemistry and materials that make up the chips. Fig. (2) displays photomi-

crographs of red/gray chips from each of the four WTC dust samples. Note the scale marker in each image as they were acquired at different magnifications. At approximately 2.5 mm in length, the chip in Fig. (2a) was one of the larger chips collected. The mass of this chip was approximately 0.7 mg. All of the chips used in the study had a gray layer and a red layer and were attracted by a magnet. The inset image in Fig. (2d) shows the chip in cross section, which reveals the gray layer. The gray layer is also partially visible in Fig. (2b). Similarities between the samples are already evident from these photographs.

Fig. (3) shows three images for comparison of views of the same set of chips using different methods. Fig. (3a) is a VLM photomicrograph of a group of particles, which shows the red material and in some cases the adhering gray material. Fig. (3b, c) are, respectively, a secondary electron (SE) image and a backscattered electron (BSE) image of the same group of particles, using a scanning electron microscope (SEM) without a conductive coating over the sample. It can be seen in the SE image that the red layer of the particles has very bright regions caused by a slight accumulation of charge under the electron beam, owing to the relatively poor conductivity of the red layer (see Discussion section). The BSE image shows the red layer darker than the gray layer,

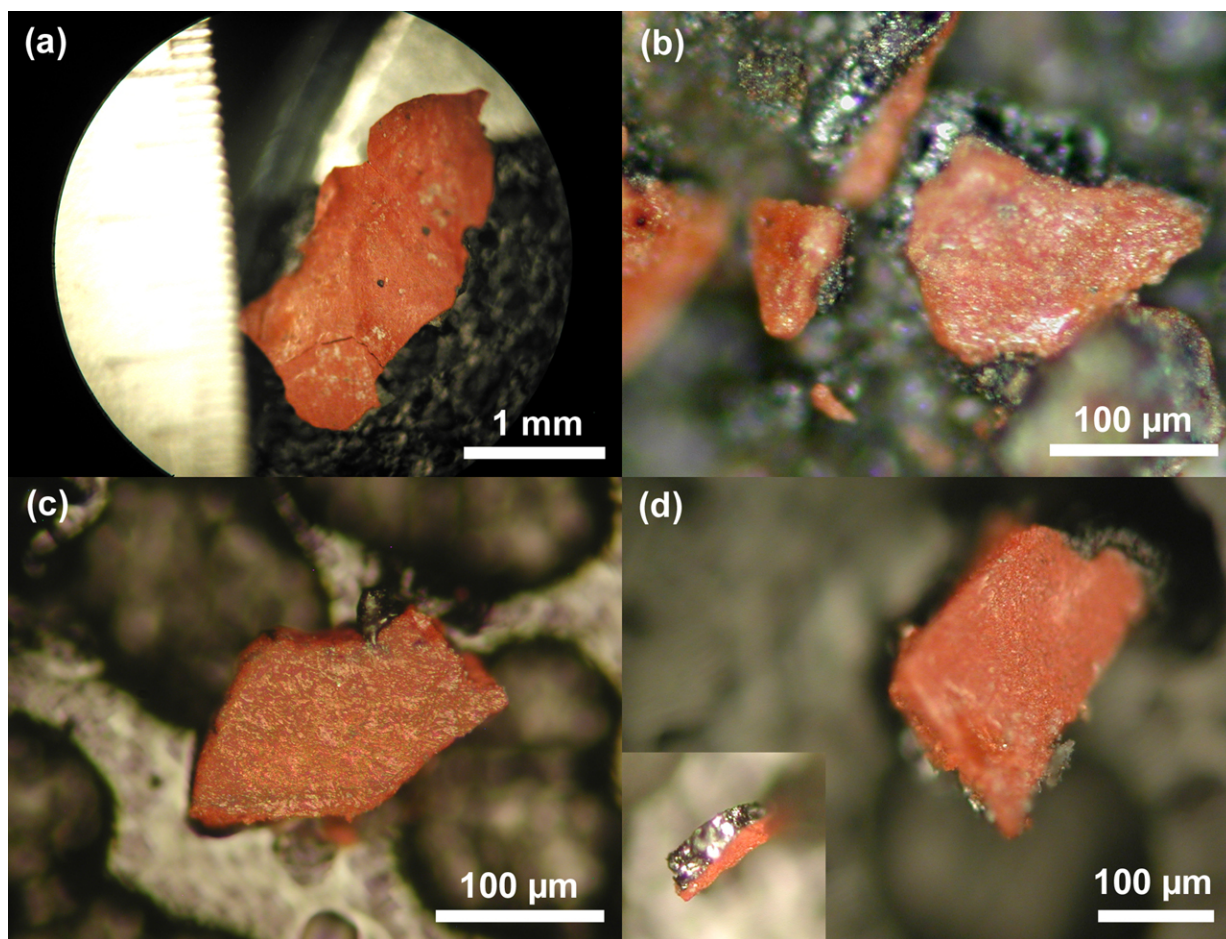


Fig. (2). Photomicrographs of red/gray chips from samples 1-4 of the WTC dust involved in this study, shown in (a)-(d) respectively. The inset in (d) shows the chip edge on, which reveals the gray layer. The red/gray chips are mounted on an aluminum pedestal, using a carbon conductive tab, for viewing in the scanning electron microscope (SEM).

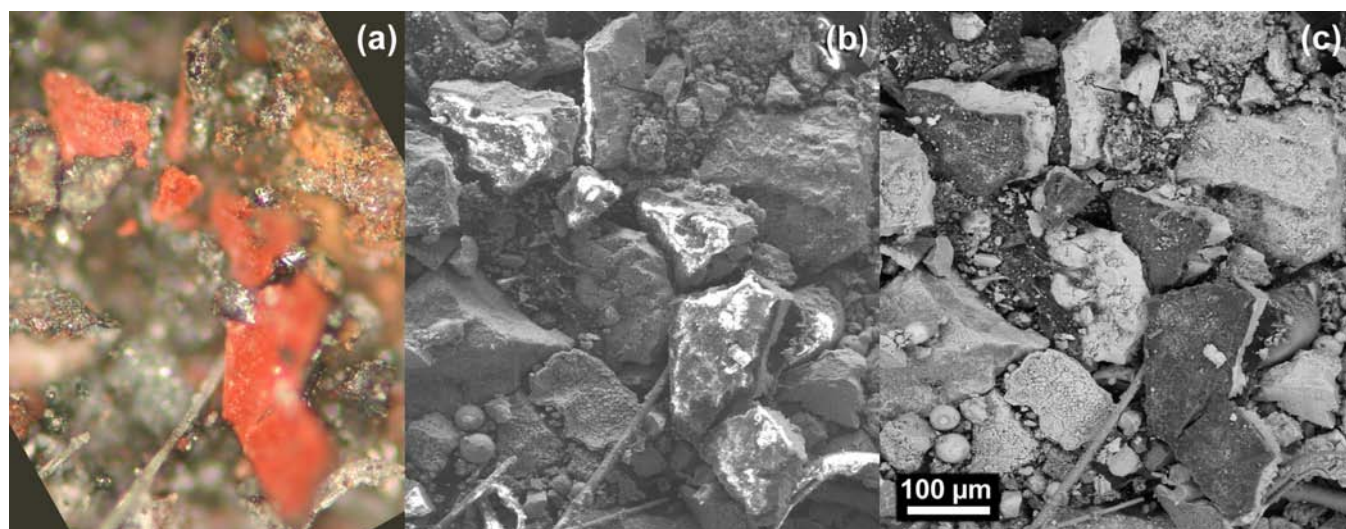


Fig. (3). A series of images of the same group of particles extracted by magnet from sample 2. The color photomicrograph in (a), obtained by VLM, locates and identifies the red/gray particles. An SE image (b) acquired by SEM gives a better indication of size and shape of the particles, and a BSE image (c) shows, by grayscale intensity, the difference in average atomic number between the red layer, gray layer and other dust particles.

indicating that the red layer is composed of material that has a relatively lower average atomic number than the gray layer.

A higher-magnification BSE image of the corner of one of the chips, shown in Fig. (4), allows for closer examination of the difference in grayscale intensity of the two layers and confirms the higher average atomic number of the gray layer. The red material also shows specks and other heterogeneities, in marked contrast to the smooth gray layer.

Newly fractured cross sections of red/gray chips from the four different dust samples are shown by BSE imaging in Fig. (5). These four cross sections are representative of all the red/gray chips studied from the dust samples. The BSE images illustrate the finding that all of the red layers studied contained small bright particles or grains characterized by a high average atomic number. The size and presence of the particles was found to be consistent throughout the layers, but the concentration of the particles was found to vary locally, as can be seen from the images.

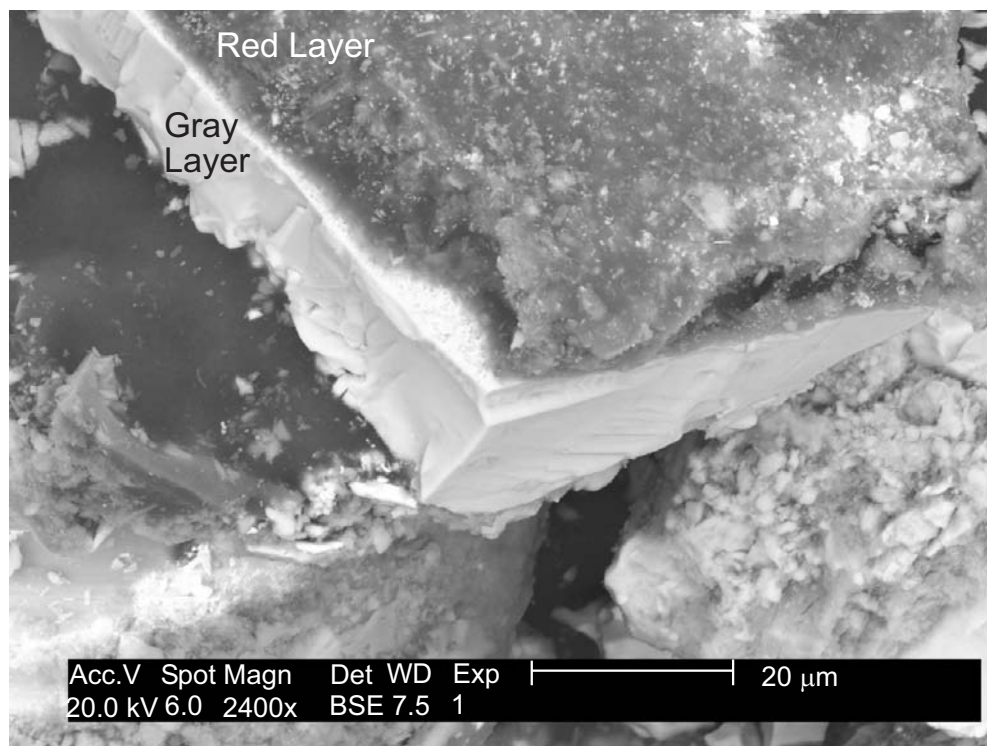


Fig. (4). Higher magnification BSE image of one of the chips in previous image. The red layer appears darker and is on top of the gray layer.

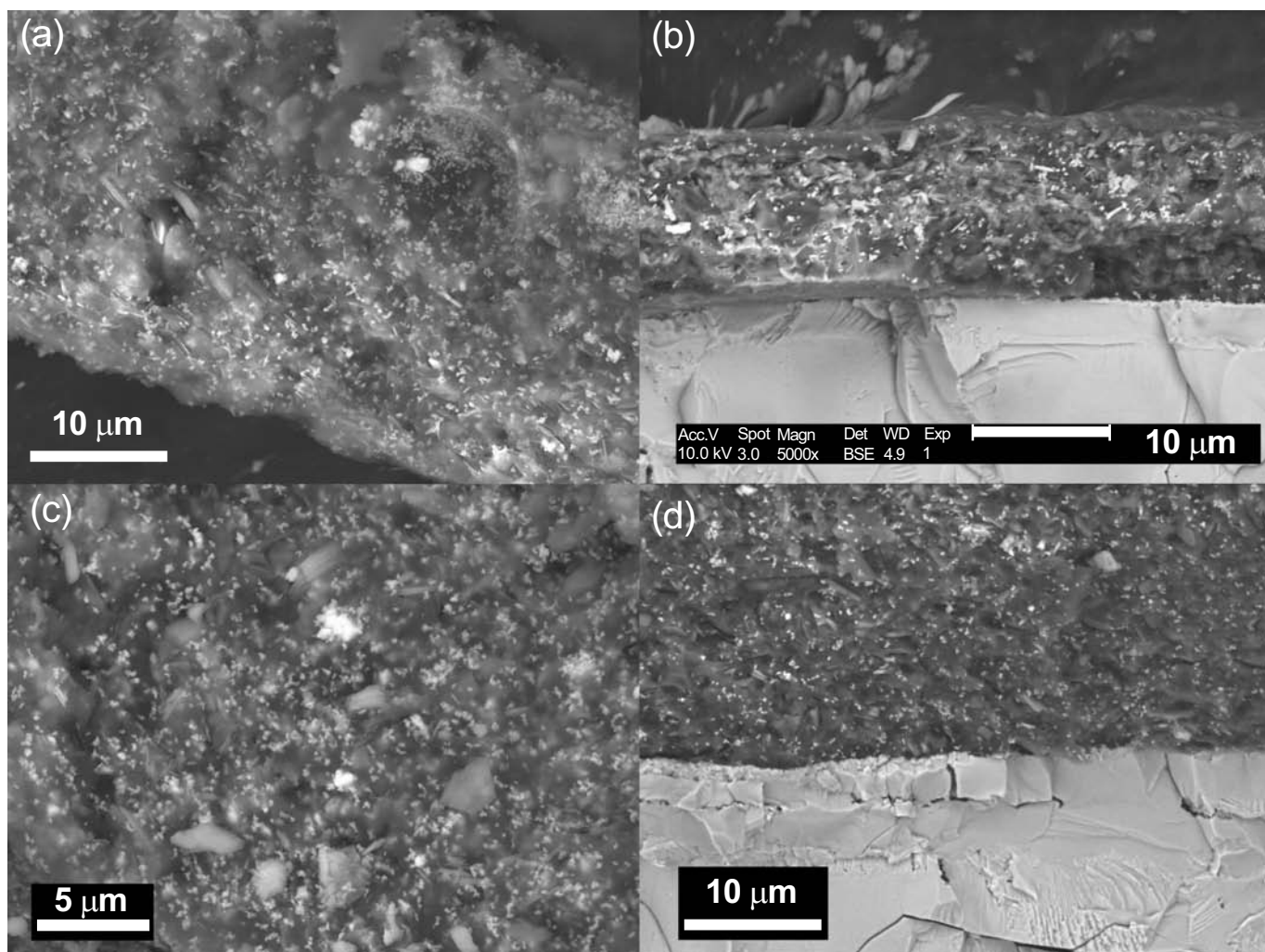


Fig. (5). BSE images of cross sections of red/gray chips from samples 1-4 shown in (a)-(d) respectively. The cross sections from sample 2 (b) and 4 (d) also show the adhering gray layer.

X-ray energy-dispersive spectroscopy (XEDS) analyses of both the red and gray layers from cross sections prepared from the four dust samples were performed and representative spectra are shown in Figs. (6, 7). The four spectra in Fig. (6) indicate that the gray layers are consistently characterized by high iron and oxygen content including a smaller amount of carbon. The chemical signatures found in the red layers are also quite consistent (Fig. 7), each showing the presence of aluminum (Al), silicon (Si), iron (Fe) and oxygen (O), and a significant carbon (C) peak as well.

At still higher magnifications, BSE imaging of the red layer illustrates the similarity between the different dust samples. BSE images of small but representative portions of each red-layer cross section are shown in Fig. (8). The results indicate that the small particles with very high BSE intensity (brightness) are consistently 100 nm in size and have a faceted appearance. These bright particles are seen intermixed with plate-like particles that have intermediate BSE intensity and are approximately 40 nm thick and up to about 1 micron across. Furthermore, by comparing the BSE image in Fig. (8a) to the SE image in Fig. (9), it can be seen that all of the particles are embedded in an unstructured matrix which gives a dark BSE intensity.

XEDS maps of the cross-section surface of the red layer were acquired at a beam energy of 10 kV. The acquisition area of the maps is shown by the BSE image in Fig. (10a). The XEDS maps, several of which are shown in Fig. (10b-f), indicate by color, the degree to which the particular element is present at or near the surface from point to point across the area. The results indicate that the smaller particles with very bright BSE intensity are associated with the regions of high Fe and O. The plate-like particles with intermediate BSE intensity appear to be associated with the regions of high Al and Si. The O map (d) also indicates oxygen present, to a lesser degree, in the location of the Al and Si. However, it is inconclusive from these data whether the O is associated with Si or Al or both. The carbon map appears less definitive, that is, it does not appear to be associated with a particular particle or group of particles, but rather with the matrix material.

In order to learn more from these findings, a focused electron beam was placed directly onto the different particles, and the XEDS data were collected. By placing the beam on a cluster of plate-like particles, the spectrum in Fig. (11a) was generated. The spectrum in Fig. (11b) was acquired

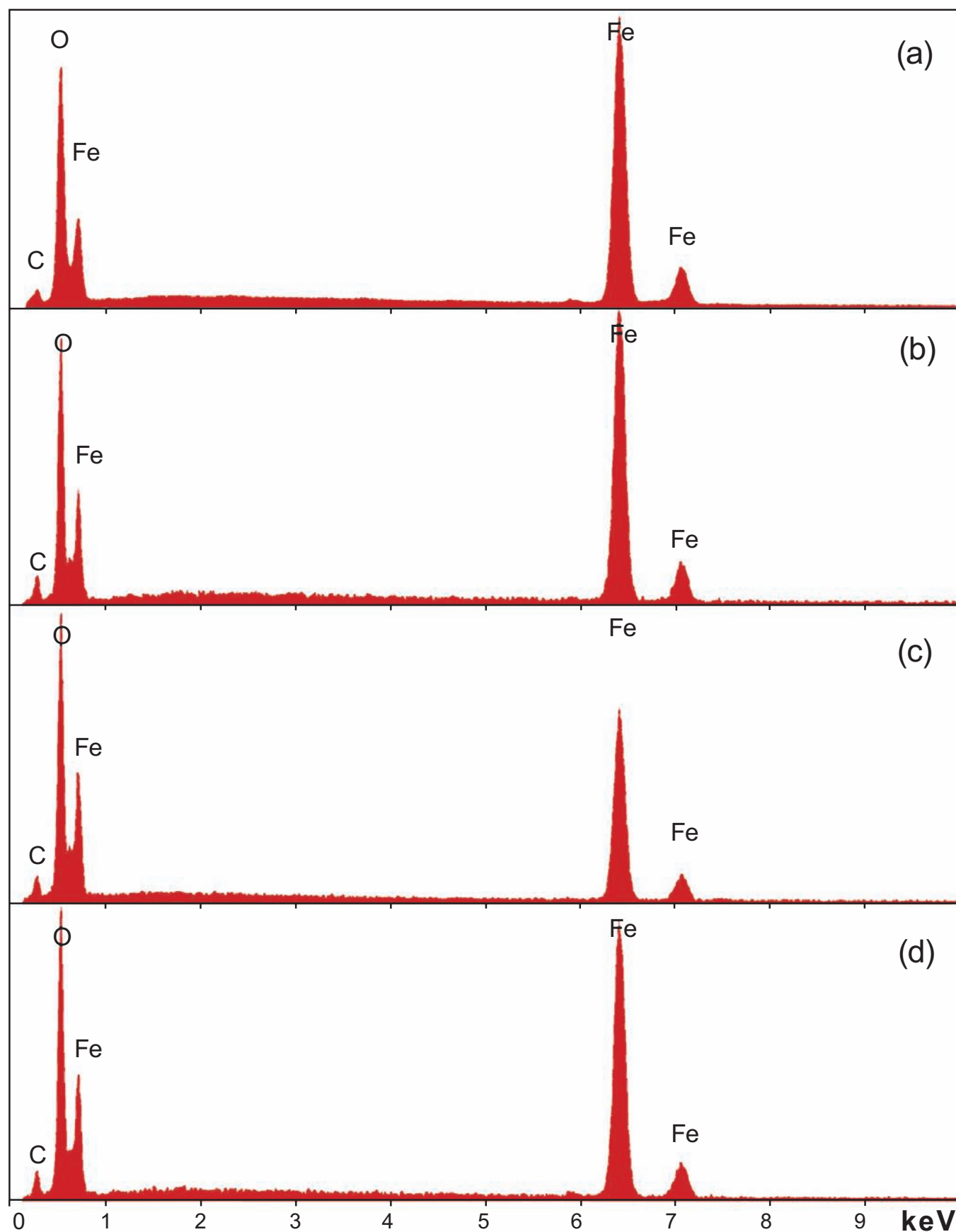


Fig. (6). XEDS spectra obtained from the gray layers from each of the four WTC dust samples, with (a) corresponding to sample 1, and so on (b-d).

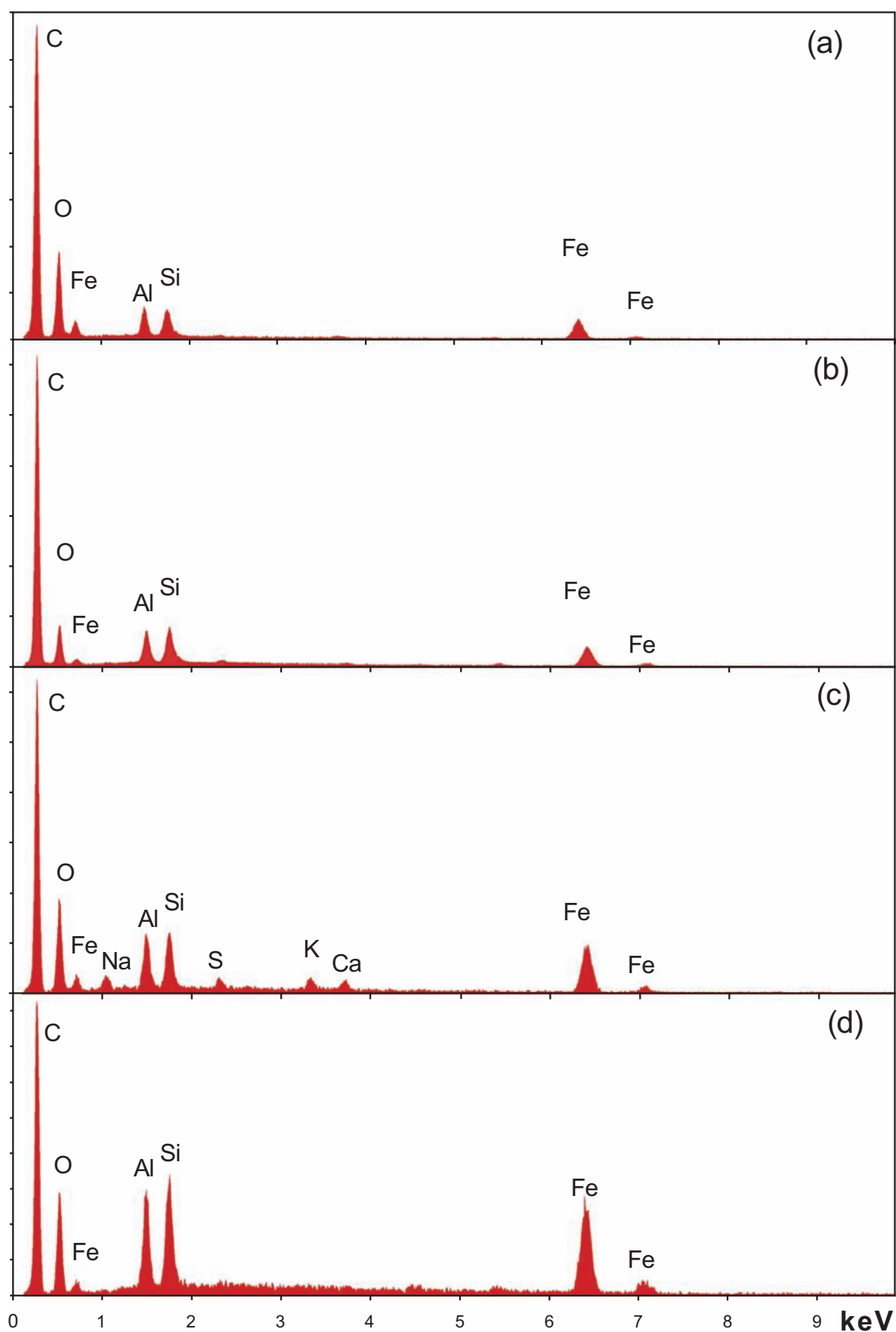


Fig. (7). XEDS spectra obtained from the red layers from each of the four WTC dust samples, with (a) corresponding to sample 1 and so on (b-d).

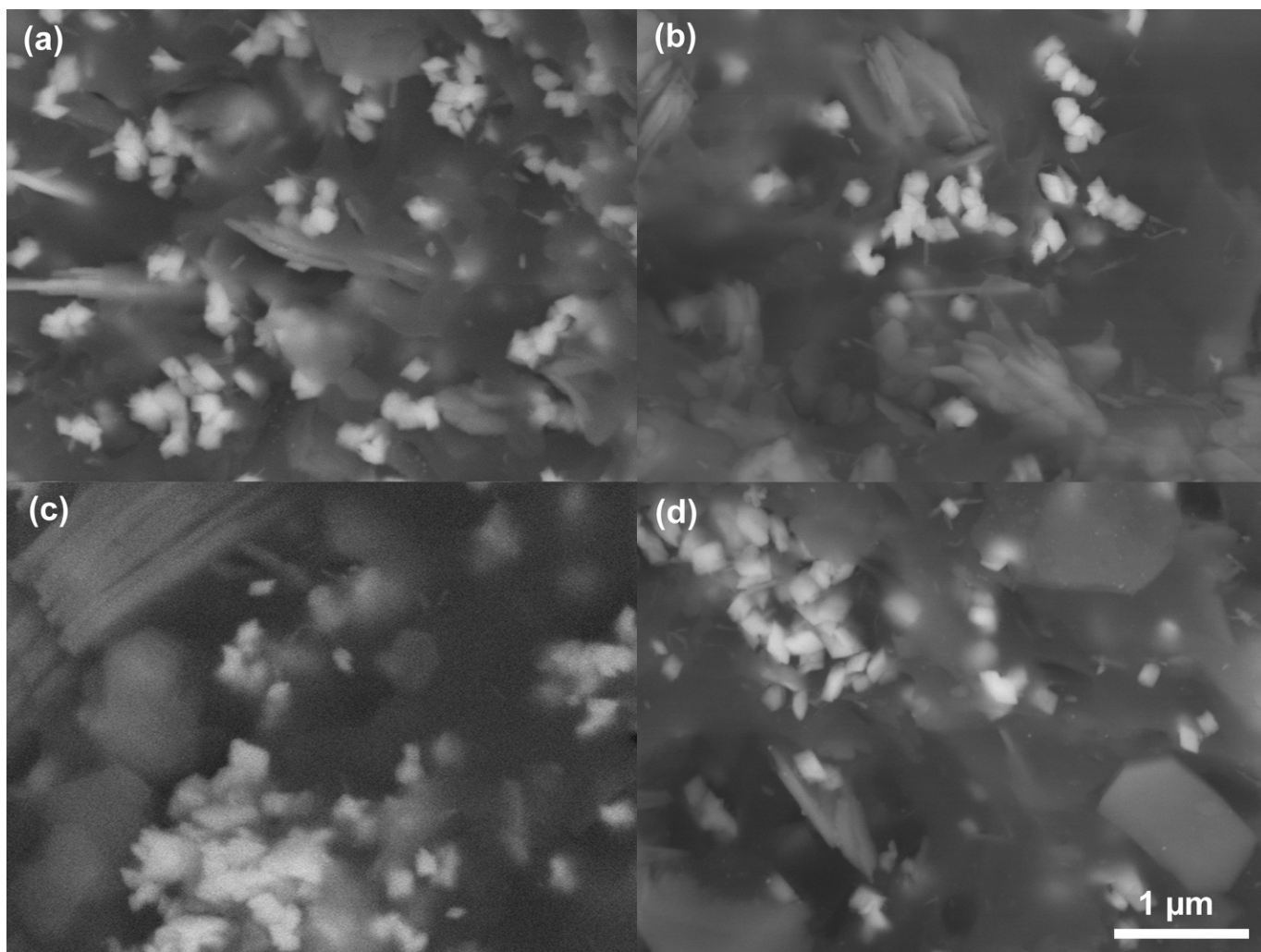


Fig. (8). BSE images of cross sections of the red layer from each of the dust samples 1-4 shown in (a)-(d) respectively.

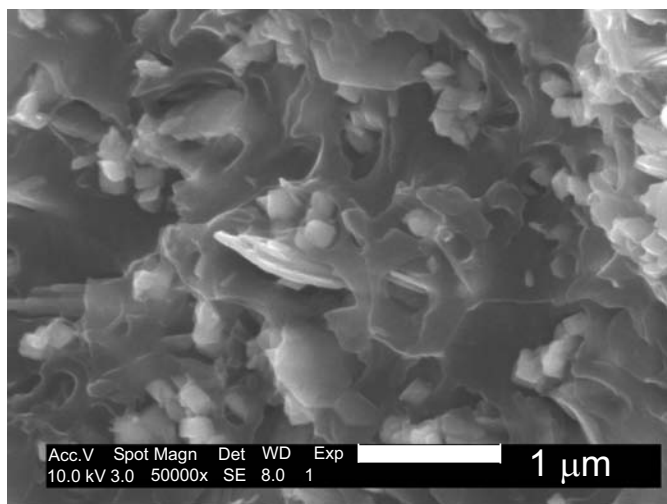


Fig. (9). SE image of the cross section shown in Fig. (8a).

from a cluster of the smaller bright faceted grains. Again it was observed that the thin sheet-like particles are rich in Al and Si whereas the bright faceted grains are rich in Fe. Both

spectra display significant carbon and oxygen, which may be partially due to the beam spreading and receiving an overlapping X-ray signal from the matrix material as well as particles below the surface. The beam energy (20 keV) is such that the volume of material from which the X-ray signal is generated is larger than the particles. Hence, some Al and Si are seen in Fig. (11b) which may not be inherent in the faceted grains, and some Fe is seen in Fig. (11a), which may not be inherent in the plate-like particles.

The consistently rhombic-shaped, faceted appearance of the iron-rich grains strongly suggests that they are crystalline. From these data, it is determined that the red/gray chips from different WTC dust samples are extremely similar in their chemical and structural makeup. It is also shown that within the red layer there is an intimate mixing of the Fe-rich grains and Al/Si plate-like particles and that these particles are embedded in a carbon-rich matrix.

2. Test Using Methyl Ethyl Ketone Solvent

By employing some means to separate the different components of the material, the chemical compositions of the different particles in the red layer were more accurately

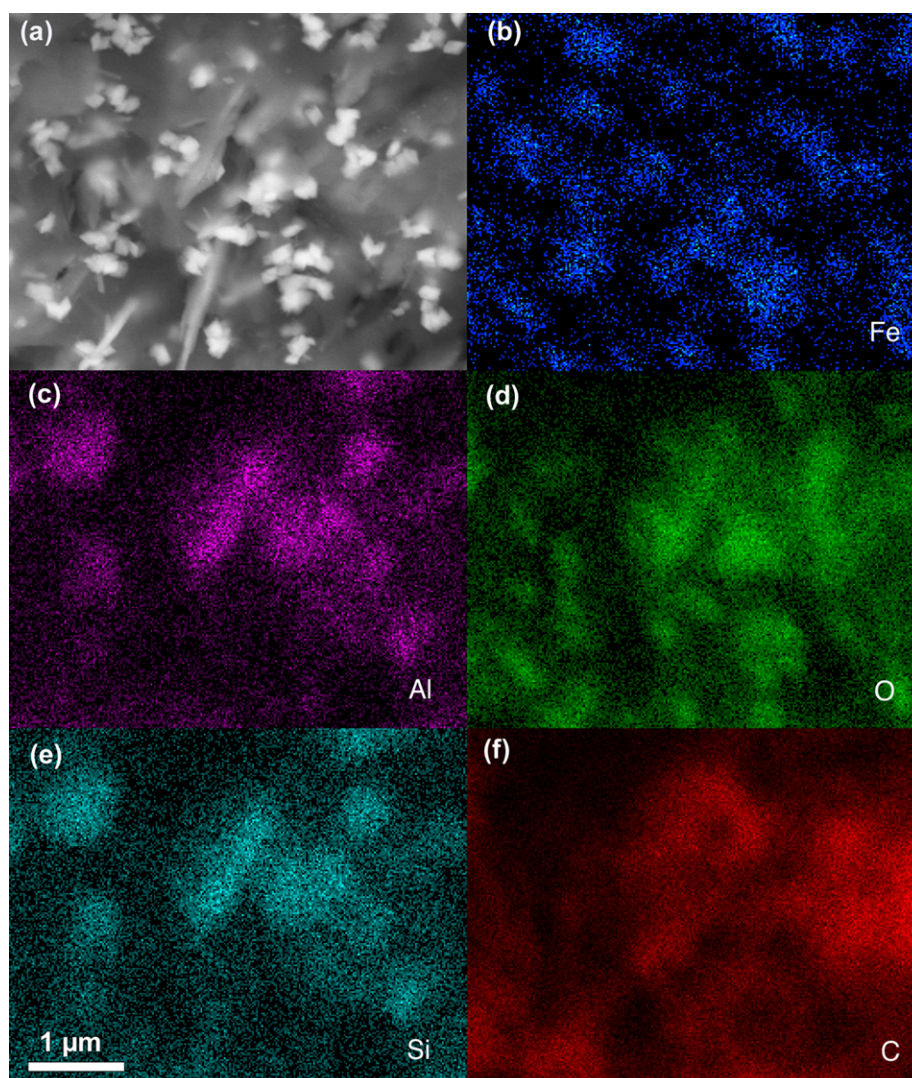


Fig. (10). This shows a BSE image (a) and XEDS maps (b-f) of the red-layer cross section of a red/gray chip from dust sample 1. The elements displayed are: (b) Fe, (c) Al, (d) O, (e) Si, and (f) C.

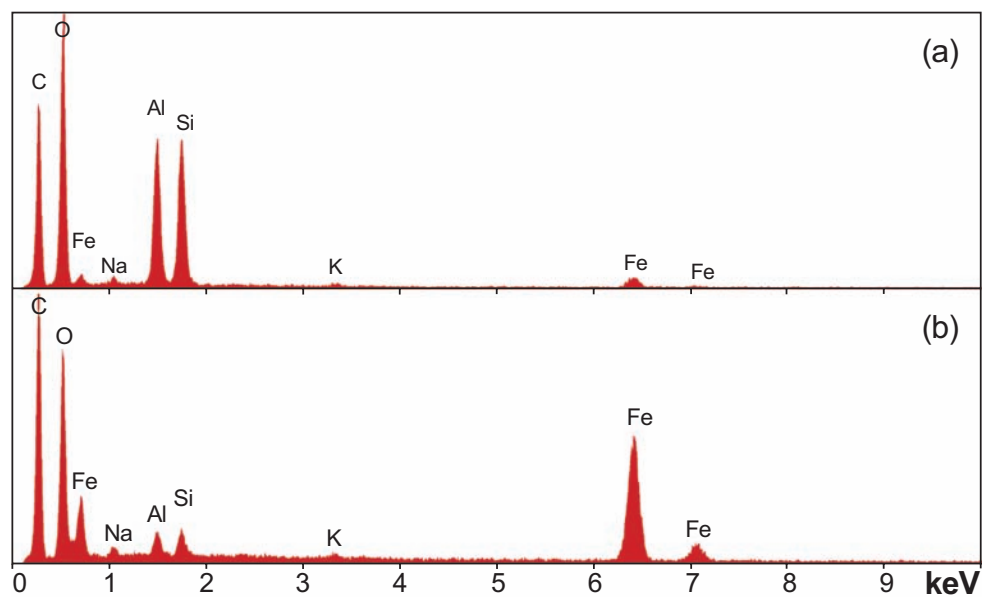


Fig. (11). XEDS spectra showing the elemental compositions of a grouping of thin platelets (a) and of a grouping of whitish particles (b), as seen in the high-magnification images of red layers (see Fig. (8)).

determined. The initial objective was to compare the behavior of the red layer with paint when soaked in a strong organic solvent known to soften and dissolve paint. Red/gray chips were soaked in methyl ethyl ketone (MEK) for 55 hours with frequent agitation and subsequently dried in air over several days. The chips showed significant swelling of the red layer, but with no apparent dissolution. In marked contrast, paint chips softened and partly dissolved when similarly soaked in MEK. It was discovered in this process that a significant migration and segregation of aluminum had occurred in the red-chip material. This allowed us to assess whether some of the aluminum was in elemental form.

The chip that was used for this experiment was extracted from dust sample 2 and is shown in the images below. Fig. (12a) shows an SE image of the chip prior to the MEK treatment. It is positioned with the interface between the red and gray layers nearly parallel to the plane of the image. Fig. (12b) shows a BSE image of the chip after the MEK soak. Note that the chip fractured during the MEK treatment and handling. In this image the red layer and gray layer are side by side so that the interface between the layers is edge-on (perpendicular to the plane of the image) with the gray layer on the right. The red layer of the chip was found, by visual inspection, to have swelled out from the gray layer by a fac-

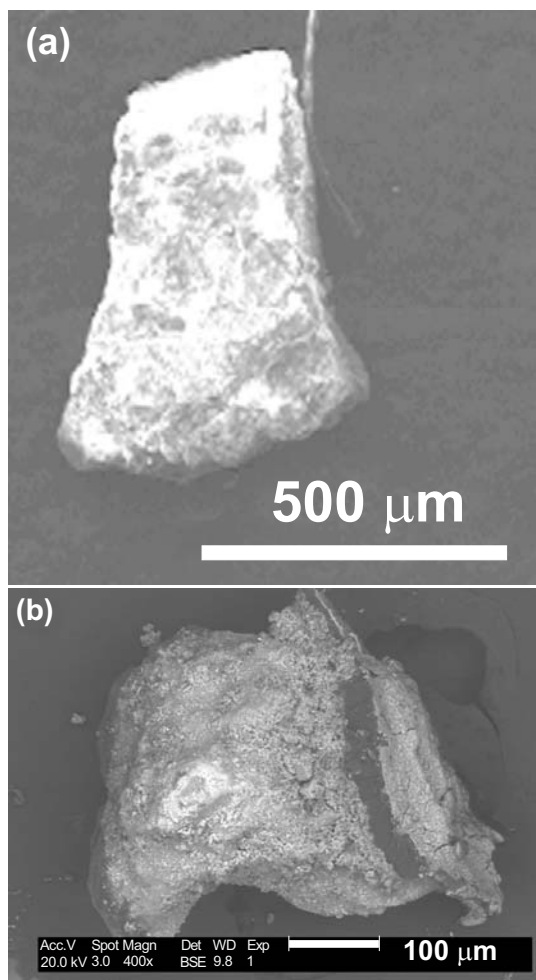


Fig. (12). SE images of the red/gray chip that was soaked in methyl ethyl ketone for 55 hours, (a) prior to and (b) after MEK soaking.

tor of roughly 5 times its original thickness. The photomicrograph shown in Fig. (13) also shows the chip after the MEK soak. The red layer can be seen extending out from the gray layer.

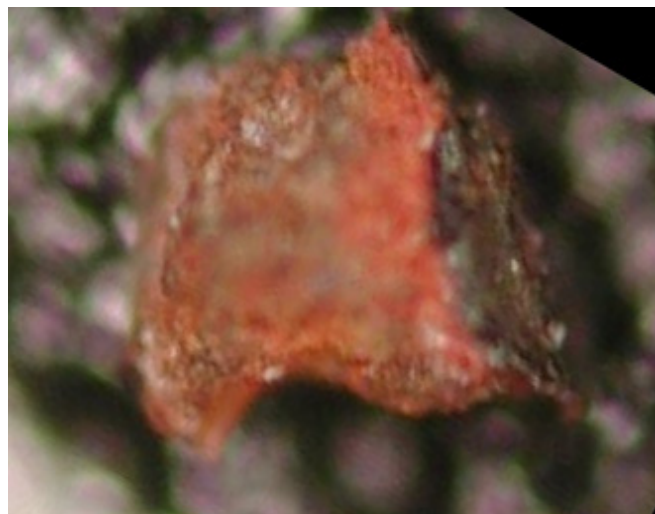


Fig. (13). Photomicrograph of the MEK treated chip.

Prior to soaking the chip in MEK an XEDS spectrum was acquired from an area of the red-layer surface. The resulting spectrum, shown in Fig. (14), produced the expected peaks for Fe, Si, Al, O, and C. Other peaks included calcium, sulfur, zinc, chromium and potassium. The occurrence of these elements could be attributed to surface contamination due to the fact that the analysis was performed on the as-collected surface of the red layer. The large Ca and S peaks may be due to contamination with gypsum from the pulverized wallboard material in the buildings.

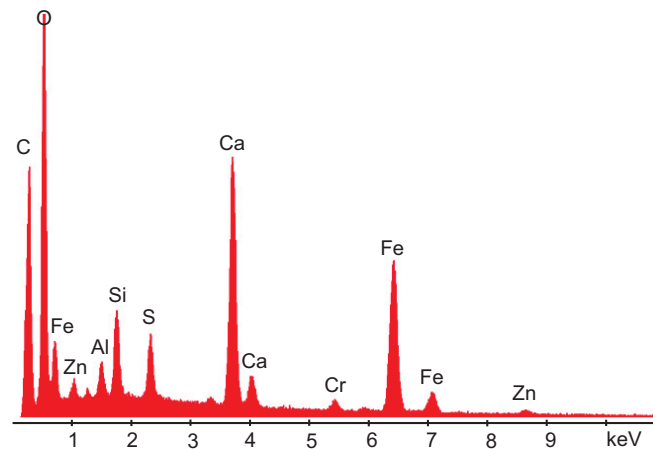


Fig. (14). XEDS spectrum of red side before soaking in MEK. Notice the presence of Zn and Cr, which are sometimes seen in the red layers. The large Ca and S peaks may be due to surface contamination with wallboard material.

XEDS maps were acquired from the swollen red material at a beam energy of 10 kV, in order to determine the locations of various elements following the MEK treatment. The data shown in Fig. (15) illustrate regions where iron, aluminum and silicon are concentrated. Furthermore, the data indicate that wherever silicon or iron is concentrated, oxygen is also concentrated. On the other hand, there also exist regions where the aluminum is concentrated but where the

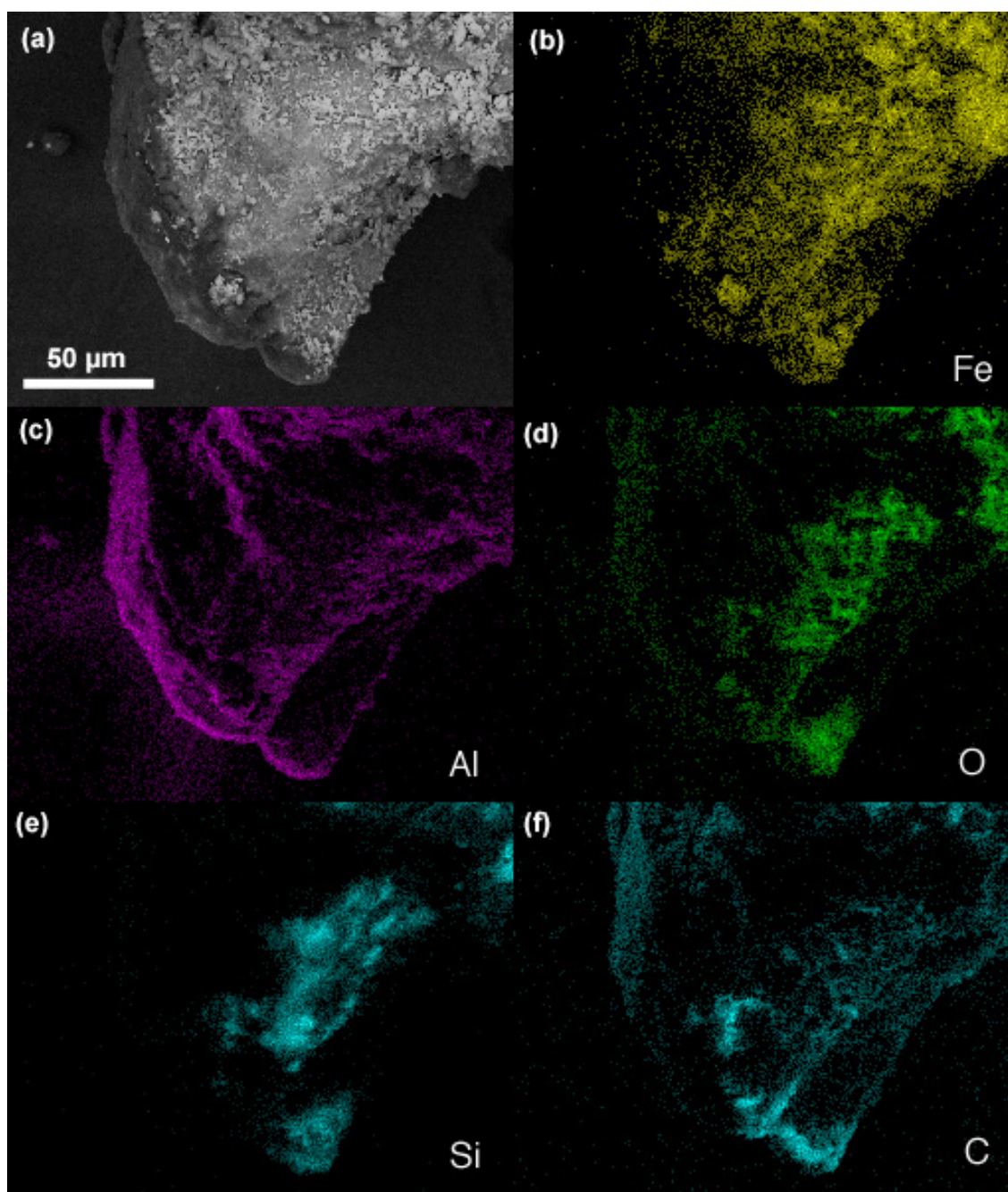


Fig. (15). (a) BSE image and (b)-(f) accompanying XEDS maps from the red layer of the chip which was soaked in methyl ethyl ketone for 55 hours. The maps for (b) Fe, (c) Al, (d) O, (e) Si, and (f) C are shown.

oxygen may not accompany it commensurately. To confirm and to quantify these observations, XEDS spectra (subsequent plots) were acquired from specific regions of high Si, Al and Fe concentrations.

Focusing the electron beam on a region rich in silicon, located in Fig. (15e), we find silicon and oxygen and very little else (Fig. 16). Evidently the solvent has disrupted the matrix holding the various particles, allowing some migration and separation of the components. This is a significant result for it means that the aluminum and silicon are not bound chemically.

The next XEDS spectrum (Fig. 17) was acquired from a region that showed a high concentration of aluminum. Using a conventional quantification routine, it was found that the aluminum significantly exceeded the oxygen present (approximately a 3:1 ratio). Thus, while some of the aluminum may be oxidized, there is insufficient oxygen present to account for all of the aluminum; some of the aluminum must therefore exist in elemental form in the red material. This is an important result. Aluminum particles are covered with a layer of aluminum oxide irrespective of size, thus it is reasonable to find a significant oxygen content with the aluminum, given the very high surface area to volume ratio of these very fine particles.

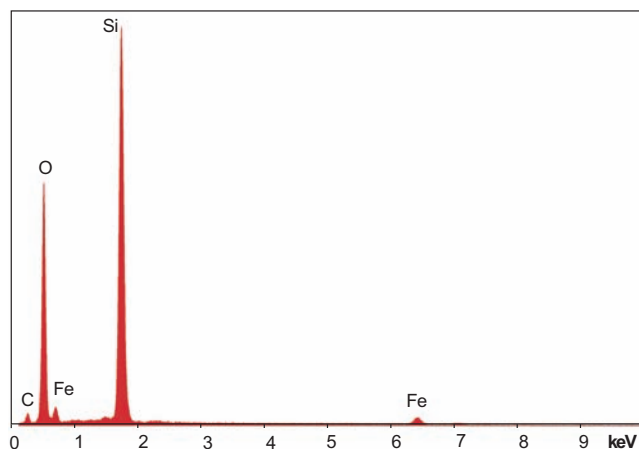


Fig. (16). XEDS spectrum from a silicon-rich region on the porous red matrix of the MEK-treated red material.

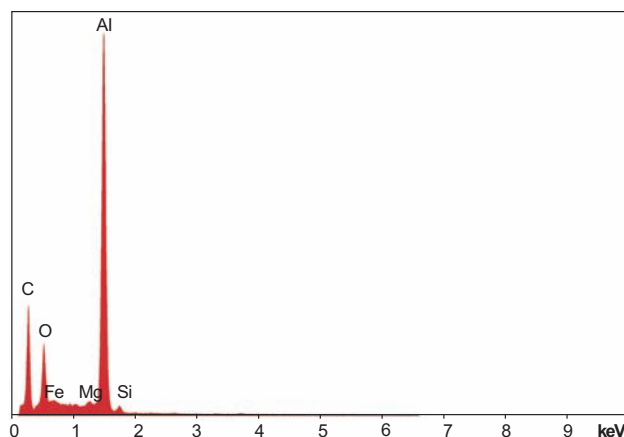


Fig. (17). XEDS spectrum obtained at 10 kV from a probe of the region of high aluminum concentration on the MEK-soaked red chip.

Next a region of particularly high iron concentration was analyzed, yielding the XEDS spectrum shown in Fig. (18).

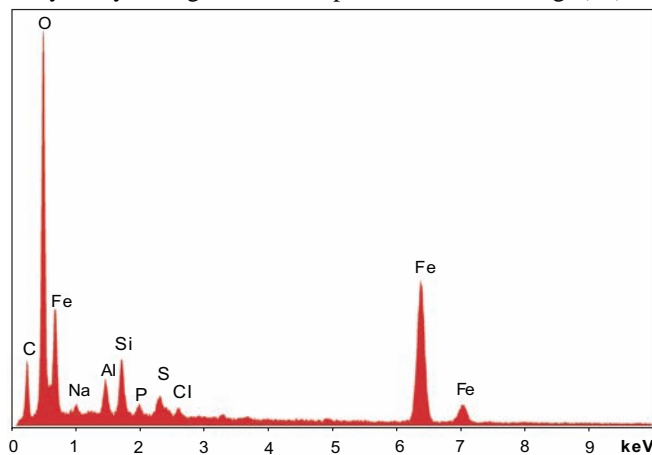


Fig. (18). XEDS spectrum obtained from a probe of the region of high iron concentration on the MEK-soaked red chip, acquired with a 15 kV beam.

Oxygen is very consistently found in high concentration with the iron in the red material even after soaking in MEK solvent (Fig. 15), and in Fig. (18) an abundance of oxygen is found relative to iron. Based on quantification of the XEDS

spectra, and after accounting for oxygen fractions to trace elements, it is found that the Fe:O ratio for the spectrum in Fig. (18) is approximately 2:3. This indicates that the iron is oxidized and apparently in oxidation state III, indicating that Fe_2O_3 , or perhaps an iron (III) oxo-bridged polymer, is present.

To check the quantification method, tests were performed with the known chemical, iron (III) oxide, and the elemental-quantification was found to yield consistent and repeatable results for iron and oxygen. In particular we made eight 50-second measurements on Fe_2O_3 samples and found consistency for iron ($\pm 6.2\%$, 1 sigma) and for oxygen ($\pm 3.4\%$, 1 sigma) with the O/Fe ratio consistently near 1.5 as expected.

The existence of elemental aluminum and iron oxide leads to the obvious hypothesis that the material may contain thermite. However, before concluding that the red material found in the WTC dust is thermite, further testing would be required. For example, how does the material behave when heated in a sensitive calorimeter? If the material does not react vigorously it may be argued that although *ingredients* of thermite are present, the material may not really be thermite.

3. Thermal Analysis using Differential Scanning Calorimetry

Red/gray chips were subjected to heating using a differential scanning calorimeter (DSC). The data shown in Fig. (19) demonstrate that the red/gray chips from different WTC samples all ignited in the range 415-435 °C. The energy release for each exotherm can be estimated by integrating with respect to time under the narrow peak. Proceeding from the smallest to largest peaks, the yields are estimated to be approximately 1.5, 3, 6 and 7.5 kJ/g respectively. Variations in peak height as well as yield estimates are not surprising, since the mass used to determine the scale of the signal, shown in the DSC traces, included the mass of the gray layer. The gray layer was found to consist mostly of iron oxide so that it probably does not contribute to the exotherm, and yet this layer varies greatly in mass from chip to chip.

4. Observation of Iron-Rich Sphere Formation Upon Ignition of Chips in a Differential Scanning Calorimeter

In the post-DSC residue, charred-porous material and numerous microspheres and spheroids were observed. Many of these were analyzed, and it was found that some were iron-rich, which appear shiny and silvery in the optical microscope, and some were silicon-rich, which appear transparent or translucent when viewed with white light; see photographs taken using a Nikon microscope (Fig. 20).

The abundant iron-rich spheres are of particular interest in this study; none were observed in these particular chips prior to DSC-heating. Spheres rich in iron already demonstrate the occurrence of very high temperatures, well above the 700 °C temperature reached in the DSC, in view of the high melting point of iron and iron oxide [5]. Such high temperatures indicate that a chemical reaction occurred.

Using back-scattered electron (BSE) imaging, spheres were selected in the post-DSC residue which appeared to be rich in iron. An example is shown in Fig. (21) along with the corresponding XEDS spectrum for this sphere.

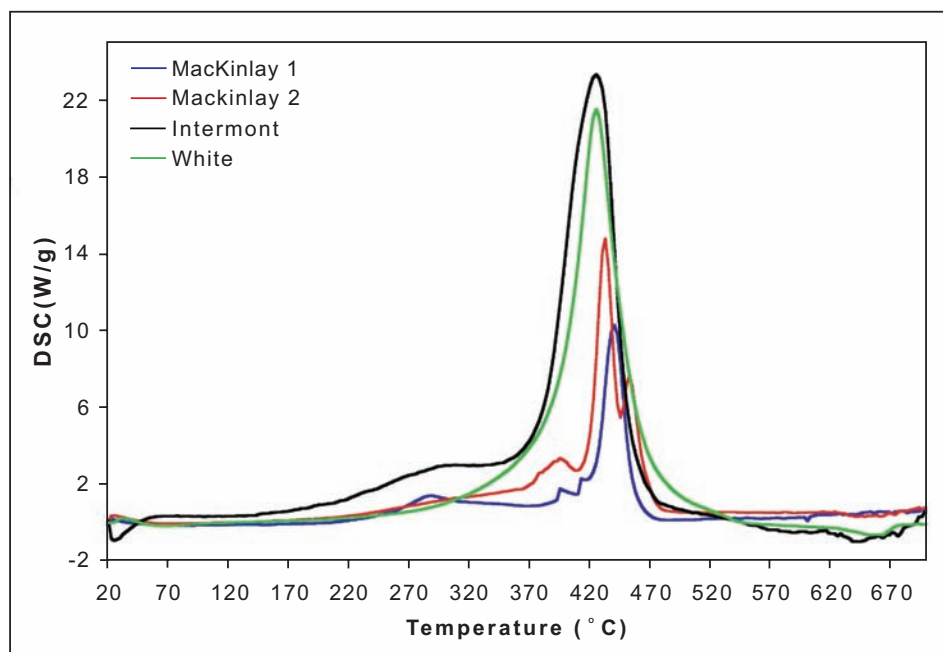


Fig. (19). Differential Scanning Calorimeter (DSC) traces for four red/gray chip samples found in World Trade Center dust collections.

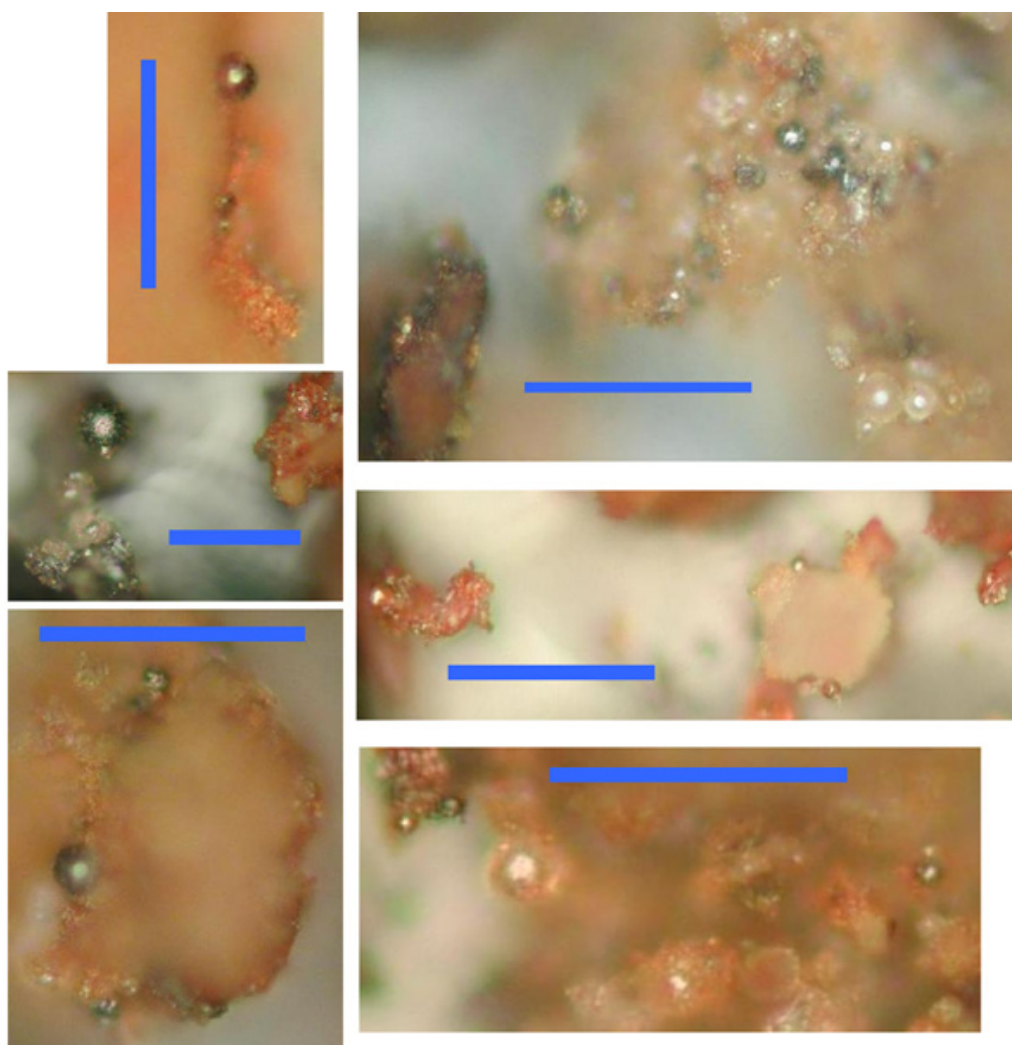


Fig. (20). Photomicrographs of residues from red/gray chips ignited in the DSC. Notice the shiny-metallic spheres and also the translucent spheres. Each blue scale-marker represents 50 microns.

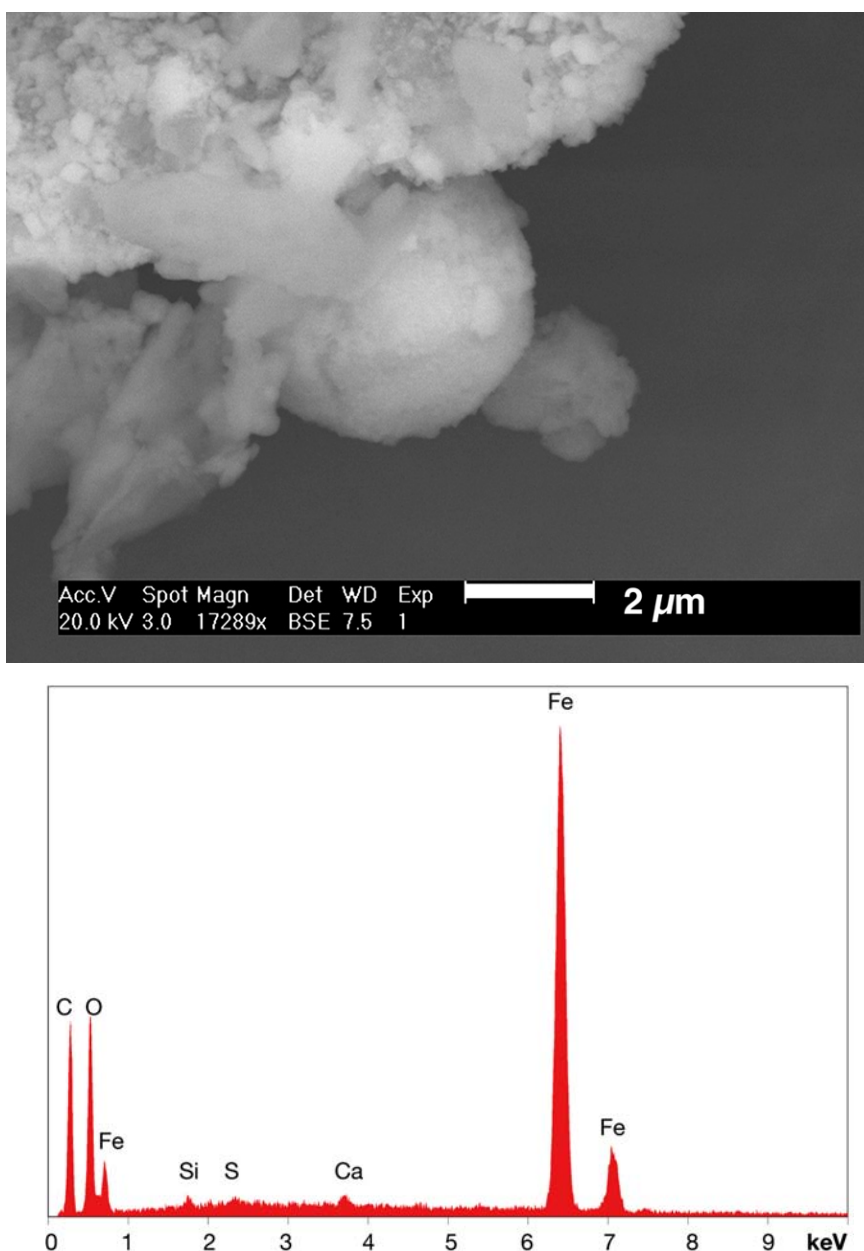


Fig. (21). Spheroid found in post-DSC residue showing iron-rich sphere and the corresponding XEDS spectrum. The carbon peak must be considered indeterminate here since this sample was flashed with a thin carbon layer in order to preclude charging under the electron beam.

A conventional quantitative analysis routine was used to estimate the elemental contents. In the case of this iron-rich spheroid, the iron content exceeds the oxygen content by approximately a factor of two, so substantial elemental iron must be present. This result was repeated in other iron-rich spheroids in the post-DSC sample as well as in spots in the residue which did not form into spheres. Spheroids were observed with Fe:O ratios up to approximately 4:1. Other iron-rich spheres were found in the post-DSC residue which contained iron along with aluminum and oxygen (see Discussion section).

That thermite reactions from the red/gray chips have indeed occurred in the DSC (rising temperature method of ignition) is confirmed by the combined observation of 1) highly energetic reactions occurring at approximately

430 °C, 2) iron-rich sphere formation so that the product must have been sufficiently hot to be molten (over 1400 °C for iron and iron oxide), 3) spheres, spheroids and non-spheroidal residues in which the iron content exceeds the oxygen content. Significant elemental iron is now present as expected from the thermite reduction-oxidation reaction of aluminum and iron oxide.

The evidence for active, highly energetic thermite material in the WTC dust is compelling.

5. Flame/Ignition Tests

The DSC used in our studies does not allow for visual inspection of the energetic reaction. Therefore tests were also performed with a small oxyacetylene flame applied to red/gray chips. Samples were either heated on a graphite block (Fig. 22)

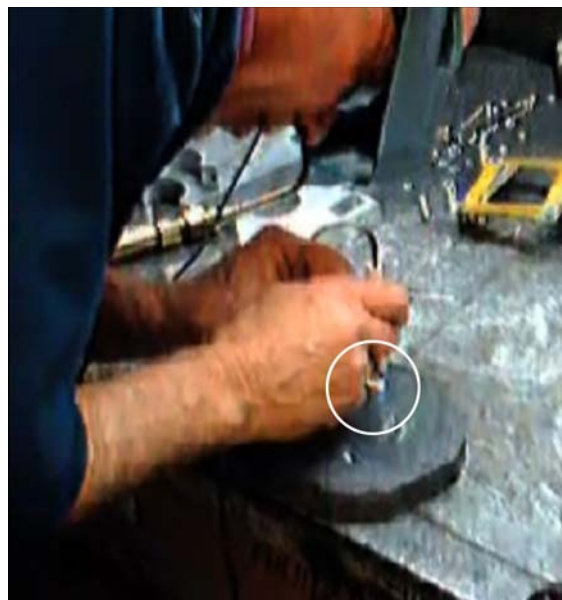


Fig. (22). Applying a small torch to a minute red chip (left), followed a few seconds later by ejection of material, producing a horizontal orange streak running toward the operator's hand (right). (Frames from video of this flame/ignition test).

or held with tweezers in the flame. Several paint samples were also tested and in each case, the paint sample was immediately reduced to fragile ashes by the hot flame. This was not the case, however, with any of the red/gray chips from the World Trade Center dust.

The first WTC red/gray chip so tested was approximately 1 mm × 1 mm. After a few seconds of heating, the high-speed ejection of a hot particle was observed under the hand of the person holding the torch (Fig. 22). The intense light and bright orange color of the particle attest to its high temperature. In this case, the attempt to recover the diminutive end-product of the reaction was unsuccessful. A short video clip of the test (including slow-motion) is available here: http://journalof911studies.com/volume/2008/oxy_redchip_slow.mov

In a later flame-ignition test, the end product was recovered and is shown in the photomicrograph and SEM image in Fig. (23). Once again, the formation of iron-rich semi-spherical shapes shows that the residue had been melted, enabling surface tension of the liquid to pull it into spherical shapes. However, the evidence obtained in the DSC analyses is more compelling that a thermite reaction actually occurs as in that case ignition is observed when the red material is heated to no more than 430 °C.

DISCUSSION

All of the dust samples that were inspected were found to contain red/gray chips. The chips are characterized by a red layer in which XEDS analysis identifies carbon, oxygen, aluminum, silicon, and iron, and a gray layer in which mainly iron and oxygen are found. The ratios of these ele-

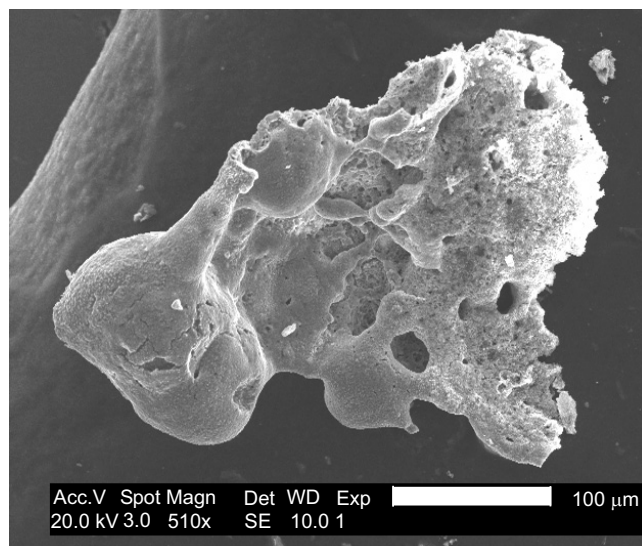
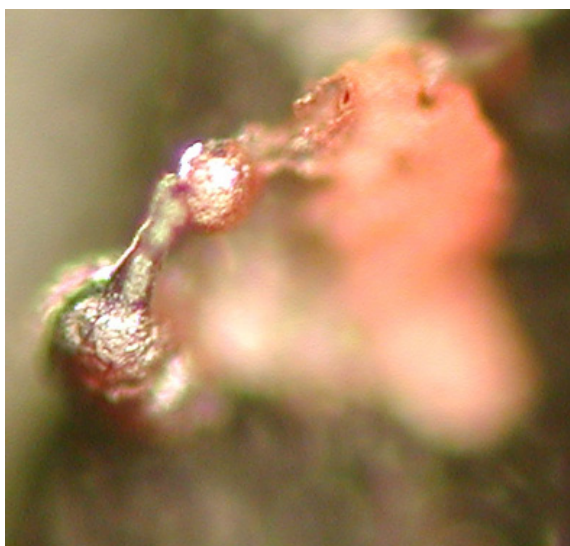


Fig. (23). Silvery-gray spheroids (left) are seen after the ignition test of red/gray chip from sample 1; some of the porous red material remains; both can be seen in the corresponding SEM image (right).

ments appear to be similar especially when this analysis is performed on a clean cross-section of the layers. The BSE imaging also shows the consistency of the red layers by revealing the size and morphology of the particles that are contained in the bulk of the layers. The results clearly show the similarities of the red/gray chips from the different dust samples from all four sites.

There are a number of questions raised by our results.

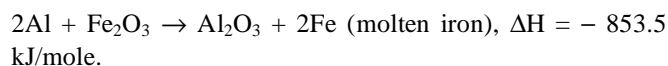
1. How Much of the Energetic Red Material Survived During the WTC Destruction?

In the sample provided by collector J. MacKinlay the fraction of red/gray chips was roughly estimated. Fifteen small chips having a total mass of 1.74 mg were extracted from a 1.6 g sample of dust from which readily identifiable glass and concrete fragments had been removed by hand. Thus the fraction of red/gray chips was approximately 0.1% by weight in the separated dust. Another sampling showed 69 small red/gray chips in a 4.9 g sample of separated dust. Further samples are being analyzed to refine this estimate. The fall of the WTC Towers produced enormous clouds of dust whose total mass is difficult to ascertain; but clearly the total mass of red/gray chips in the WTC dust must be substantial given the fraction observed in these samplings.

2. Is the Red Material Thermite in Nature?

Our observations show that the red material contains substantial amounts of aluminum, iron and oxygen, mixed together very finely. In the sample soaked in MEK, we observed a clear migration and aggregation of the aluminum away from other elements and determined that elemental aluminum and iron oxide must be present. In the product collected after DSC ignition, we found spheres which were not initially present. Many of these spheres were iron rich and elemental iron was found in the post-ignition debris. Further, the DSC traces demonstrate that the red/gray chips react vigorously at a temperature below the melting point of aluminum and below the ignition (oxidation) point of ultra-

fine grain (UFG) aluminum in air [18]. These observations reminded us of nano-thermite fabricated at the Lawrence Livermore National Laboratory and elsewhere; available papers describe this material as an intimate mixture of UFG aluminum and iron oxide in nano-thermite composites to form pyrotechnics or explosives [19-21]. The thermite reaction involves aluminum and a metal oxide, as in this typical reaction with iron oxide:



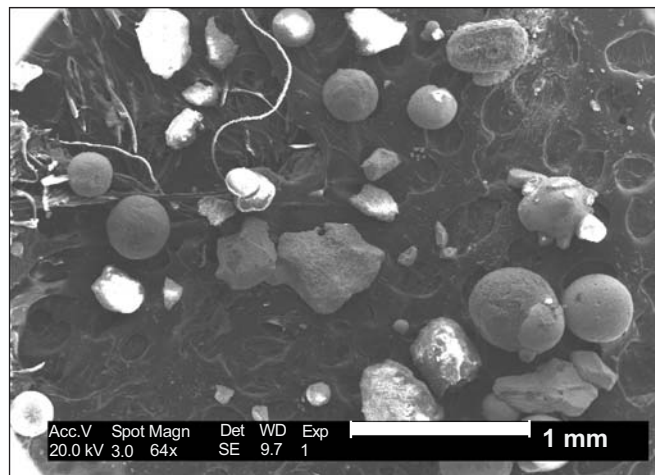
Commercially available thermite behaves as an incendiary when ignited [6], but when the ingredients are ultra-fine grain (UFG) and are intimately mixed, this “nano-thermite” reacts very rapidly, even explosively, and is sometimes referred to as “super-thermite” [20, 22].

We would like to make detailed comparisons of the red chips with known super-thermite composites, along with comparisons of the products following ignition, but there are many forms of this high-tech thermite, and this comparison must wait for a future study. Meanwhile, we compare with products of commercially available (macro-) thermite. During ignition of thermite, we have observed that many spheres and spheroids are formed as part of the molten product of the reaction is vigorously scattered. These particles tend to become spherical due to surface tension and, being small, are rapidly cooled and solidify as they fall through the air, thus their spherical shape is preserved.

To facilitate comparisons between the products of red/gray chip ignition and commercial thermite ignition, we juxtapose the respective images and XEDS spectra.

We observe that the spheroidal residues from ignition of red chips (Figs. 25, 26) possess a strikingly similar chemical signature to a typical XEDS spectrum from a spheroid generated by commercial thermite (Fig. 24). This similarity supports our hypothesis that the red chips are indeed a form of thermite.

Images of spheroids



XEDS spectra of spheroids

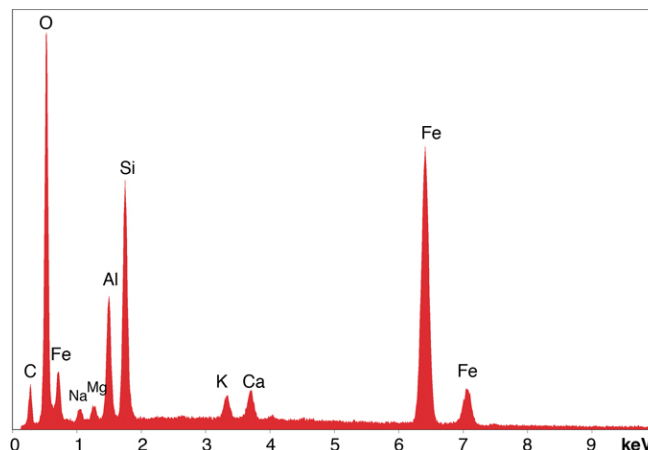


Fig. (24). Spheres formed during ignition of commercial thermite, with corresponding typical XEDS spectrum.

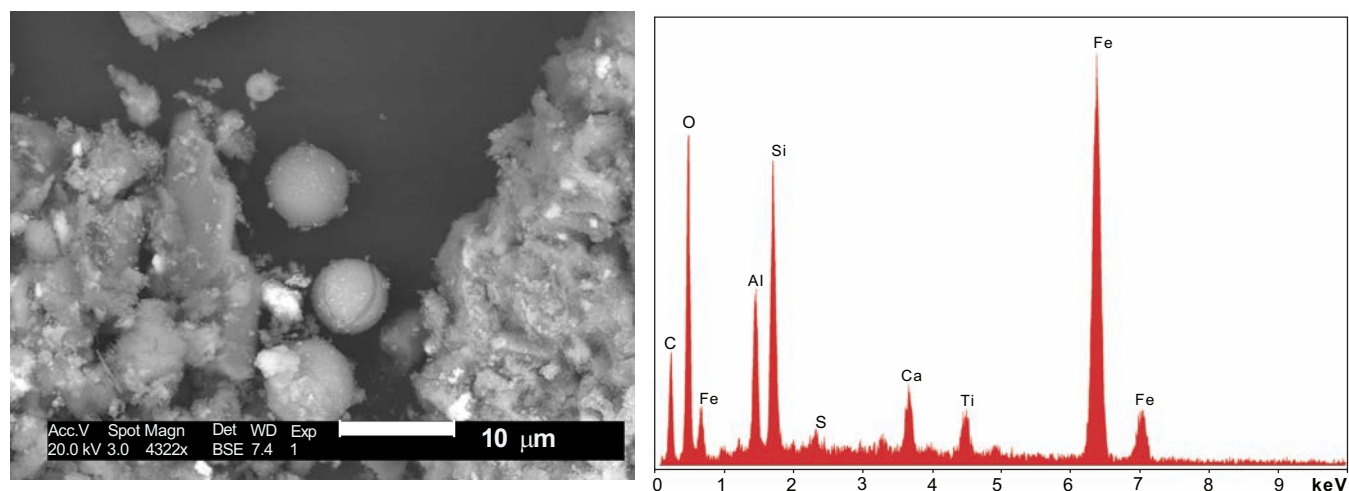


Fig. (25). Spheres formed during ignition of red/gray chip in DSC, with corresponding typical XEDS spectrum (although spheres with predominately iron and some oxygen are also seen in the post-ignition residue).

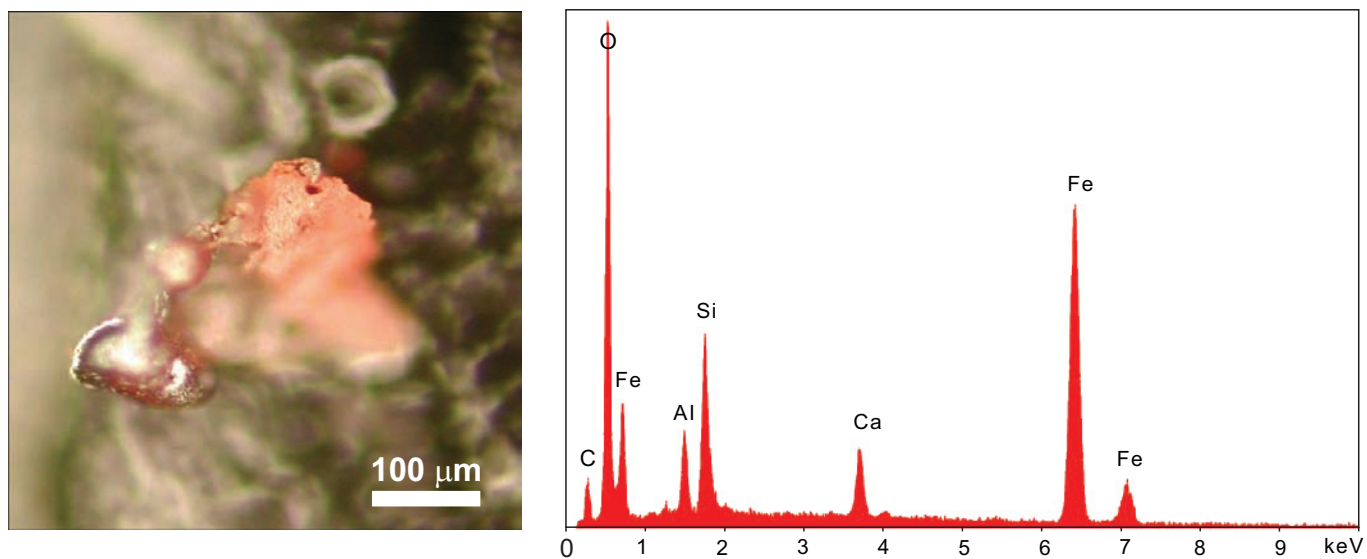


Fig. (26). Residue of red chip subjected to flame test; XEDS spectrum of left-most microsphere.

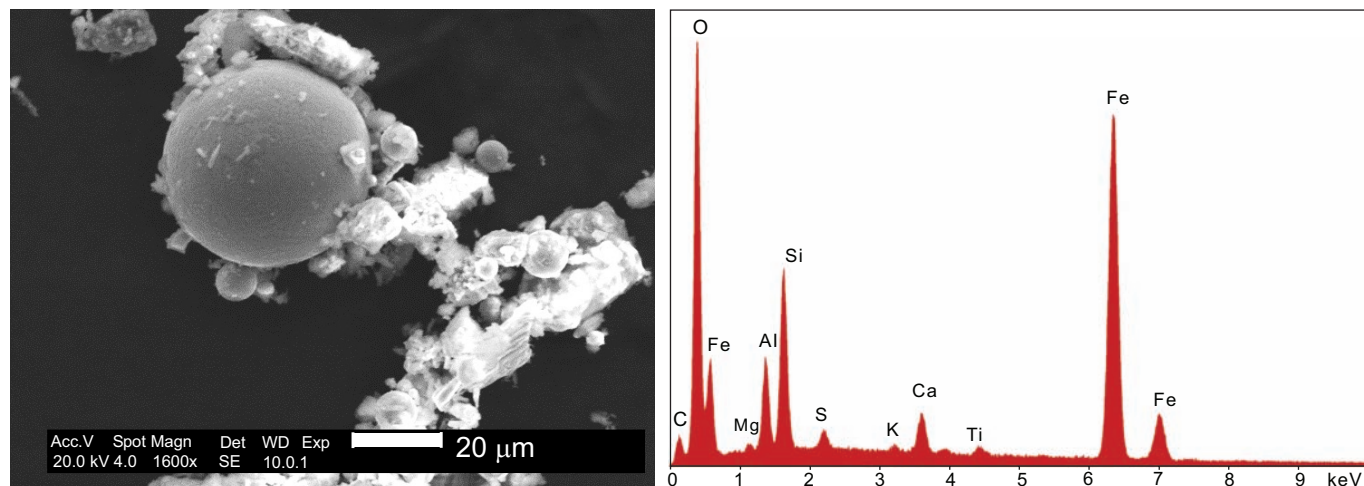


Fig. (27). Spheres extracted from WTC dust.

Fig. (28). XEDS spectrum from a sphere found in the WTC dust.

In addition to the red/gray chips, many small spheres have been found by our group in the WTC dust. These contain the same elements as the residue of thermite, as noted in a previous paper [5]. We show spheres found in the WTC dust (Fig. 27) and a representative XEDS spectrum from such a sphere (Fig. 28); we invite the reader to compare these results with those found for ignition of commercial thermite and for ignition of red/gray chips (above).

3. Could the Red Material Be Unreacted “Super-Thermite”?

We have noted that ordinary thermite acts as an incendiary when ignited. However, when the ingredients are ultra-fine-grain and are intimately mixed, the mixture reacts very rapidly, even explosively [20]. Thus, there is a highly energetic form of thermite known as an energetic nanocomposite or “super-thermite,” composed of aluminum and iron oxide with at least one component being approximately 100 nm or less, often along with silicon and carbon [19-28].

“Reaction rates between nanosize aluminum and metal oxides can be significantly greater than those observed with traditional micron-size thermite powders. Reactions occurring between metal and metal oxide powders are accompanied by the generation of high temperatures (>3000 K). Super-thermites, formed by mixing of aluminum and metal oxide nanopowders result in energy release rate by two orders of magnitude higher than similar mixtures consisting of micron size reactants” [22].

The red layer of the red/gray chips is most interesting in that it contains aluminum, iron and oxygen components

which are intimately mixed at a scale of approximately 100 nanometers (nm) or less. Now we compare a DSC trace obtained for a WTC red/gray chip with a DSC trace obtained for known super-thermite (see Fig. (29)).

Ordinary thermite ignites at a much higher temperature (about 900 °C or above) and gives a significantly broader trace than super-thermite [21]. All these data suggest that the thermitic material found in the WTC dust is a form of nano-thermite, not ordinary (macro-) thermite. We make no attempt to specify the particular form of nano-thermite present until more is learned about the red material and especially about the nature of the organic material it contains.

4. Did the Technology to Make Highly Exothermic Nanocomposites Exist Prior to 9/11/2001?

We find the answer in a report by Gash *et al.* dated April 2000, seventeen months before the tragedy:

“Nanostructured composites are multicomponent materials in which at least one of the component phases has one or more dimensions (length, width, or thickness) in the nanometer size range, defined as 1 to 100 nm. Energetic nanocomposites are a class of material that have both a fuel and oxidizer component intimately mixed and where at least one of the component phases meets the size definition. A sol-gel derived pyrotechnic is an example of an energetic nanocomposite, in which metal-oxide nanoparticles react with metals or other fuels in very exothermic reactions. The fuel resides within the pores of the solid matrix while the oxidizer comprises at least a portion of the skeletal ma-

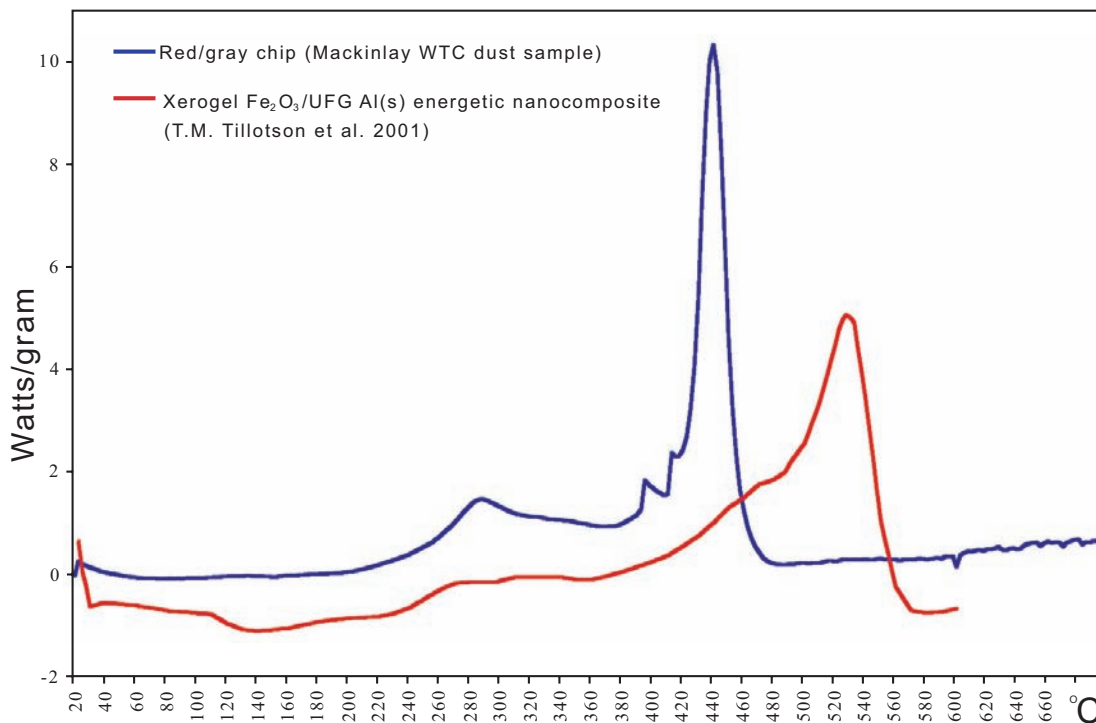


Fig. (29). DSC trace of sample 1 (blue line) compared with DSC of xerogel Fe₂O₃/UFG Al nanocomposite (from Tillotson *et al.* [28]). Both DSC traces show completion of reaction at temperatures below 560 °C.

trix.” “As an example, energetic nanocomposites of Fe_xO_y and metallic aluminum are easily synthesized. The compositions are stable, safe and can be readily ignited” [19].

We gather that the technology to make materials remarkably fitting the characterization of the red chips was available by April 2000. In the same report, the scientists noted that “polymers” can be added to the nanocomposite:

“This sol-gel method allows for the addition of insoluble materials (e.g., metals or polymers) to the viscous sol, just before gelation, to produce a uniformly distributed and energetic nanocomposite upon gelation. Al metal (as a fine powder, $\sim 6\mu\text{m}$ diameter) was added to some Fe_xO_y gel syntheses just before gelation to produce $\text{Fe}_x\text{O}_y/\text{Al(s)}$ pyrotechnic nanocomposites.... These nanocomposites were subsequently processed to make both a xerogel and aerogel of the material.... The pyrotechnic nanocomposite can be ignited using a propane torch” [19].

Indeed, the red chips can be ignited using a torch and they have properties of a pyrotechnic nanocomposite. All the required ingredients are present – aluminum, iron, oxygen, silicon, and carbon – and they are incorporated in such a way that the chip forms (and sometimes ejects) very hot material when ignited. The Gash report describes FTIR spectra which characterize this energetic material. We have performed these same tests and will report the results elsewhere. We note that polymers in the matrix may be responsible for absorption of MEK and the subsequent swelling which we observed [29].

A report on an April 2001 conference discloses who was known to be working on such explosives at that time:

The 221st National Meeting of the American Chemical Society held during April 2001 in San Diego featured a symposium on Defense Applications of Nanomaterials. One of the 4 sessions was titled nanoenergetics.... This session provided a good representation of the breadth of work ongoing in this field, which is roughly 10 years old.... At this point in time, all of the military services and some DOE and academic laboratories have active R&D programs aimed at exploiting **the unique properties of nanomaterials that have potential to be used in energetic formulations for advanced explosives.... nanoenergetics hold promise as useful ingredients for the thermobaric (TBX) and TBX-like weapons**, particularly due to their high degree of tailorability with regards to energy release and impulse management [20].

The feature of “impulse management” may be significant. It is possible that formulations may be chosen to have just sufficient percussive effect to achieve the desired fragmentation while minimizing the noise level.

5. Can Super-Thermite be Handled Safely?

The April 2000 report by Gash *et al.* states:

“The nature of the wet nanocomposites also affords an additional degree of safety. In our hands, the wet pyrotechnic nanocomposites cannot be ignited until the drying process is complete. This property should allow the production of a large quantity of the pyrotechnics that can be stored safely for some time and dried shortly before its use” [19].

Safe handling of the malleable sol-gel material allows easy coating of surfaces (such as steel), which the same group, in a subsequent report, says they have achieved.

“The sol-gel process is very amenable to dip-, spin-, and spray-coating technologies to coat surfaces. We have utilized this property to dip-coat various substrates to make sol-gel $\text{Fe}_2\text{O}_3/\text{Al/Viton}$ coatings. The energetic coating dries to give a nice adherent film.” “We have prepared fine powders, pressed pellets, cast monoliths, and thin films of the hybrid inorganic/organic energetic nanocomposite” [25].

Thus, the energetic nano-composite can be sprayed or even “painted” onto surfaces, effectively forming an energetic or even explosive paint. The red chips we found in the WTC dust conform to their description of “thin films” of “hybrid inorganic/organic energetic nanocomposite”. Indeed, the descriptive terms “energetic coating” and “nice adherent film” fit very well with our observations of the red-chips which survived the WTC destruction. We cannot determine at this time, however, whether the thinness of the chips resulted from the application method or the manner of reaction. While the application of a thin film might have suited specific desired outcomes, it is also possible that the quenching effect of the steel the material was in contact with may have prevented a thin film of a larger mass from reacting. The fact that most of the chips have a distinctive gray layer suggests that the unreacted material was in close contact with something else, either its target, a container, or an adhesive.

Clapsaddle *et al.* further noted in their report:

“These results indicate that under ambient conditions the hybrid inorganic/organic energetic composite is very stable to impact, is spark insensitive, and only very slightly friction sensitive. As noted in the Experimental section of this report, in our hands wet hybrid nanocomposites are safe to handle and difficult to thermal [sic] ignite. However, once dry the material burns very vigorously and rapidly with the evolution of significant amounts of gaseous species” [24].

The organic component contributes to the rapid gas evolution and explosive nature of these energetic super-thermites when dry [24].

“Super-thermite electric matches” have been developed at Los Alamos National Laboratory for which “applications include triggering explosives for ... demolition” [30]. It is indeed possible that such matches, which are designed to be ignited by a simple electric pulse, could contain material

similar to the red material we have found in the WTC dust. With regard to the safety of super-thermite matches, the Los Alamos announcement notes:

“Unfortunately, conventional electric matches use lead containing compounds that are extremely sensitive to impact, friction, static, and heat stimuli, thereby making them dangerous to handle. In addition, these compounds produce toxic smoke. The Super-Thermite electric matches produce no toxic lead smoke and are safer to use because **they resist friction, impact, heat, and static discharge** through the composition, thereby minimizing accidental ignition. They can be designed to create various thermal-initiating outputs—simple sparks, hot slag, droplets, or flames—depending on the needs of different applications” [30].

6. What is the Energy Release of Super-Thermite Compared to Conventional Explosives?

A graph in an article on nanostructured energetic materials [21] shows that the energy/volume yield for Al/Fe₂O₃ composite material exceeds that of TNT, HMX and TATB explosives commonly used in demolitions (see Fig. (30)).

It is striking that some of the red/gray chips release more energy in kJ/g than does ordinary thermite, as shown in the blue bar graphs above. The theoretical maximum for thermite is 3.9 kJ/g [27]. We suggest that the organic material in evidence in the red/gray chips is also highly energetic, most likely producing gas to provide explosive pressure. Again, conventional thermite is regarded as an incendiary whereas super-thermite, which may include organic ingredients for rapid gas generation, is considered a pyrotechnic or explosive [6, 24]. As this test was done in air it is possible that

some of the enhancement of energy output may have come from air oxidation of the organic component.

7. Could the Red Chip Material be Ordinary Paint?

We measured the resistivity of the red material (with very little gray adhering to one side) using a Fluke 8842A multimeter in order to compare with ordinary paints, using the formula:

$$\text{Specific resistivity} = RA / L$$

where R = resistance (ohms); A = cross-sectional area (m²); L = thickness (m).

Given the small size of the red chip, about 0.5 mm x 0.5 mm, we used two probes and obtained a rough value of approximately 10 ohm-m. This is several orders of magnitude less than paint coatings we found tabulated which are typically over 10¹⁰ ohm-m [31].

Another test, described above, involved subsection of red chips to methyl ethyl ketone solvent for tens of hours, with agitation. The red material did swell but did not dissolve, and a hard silicon-rich matrix remained after this procedure. On the other hand, paint samples in the same exposure to MEK solvent became limp and showed significant dissolution, as expected since MEK is a paint solvent.

Further, we have shown that the red material contains both elemental aluminum and iron oxide, the ingredients of thermite, in interesting configuration and intimate mixing in the surviving chips (see Results, section 1). The species are small (e.g., the iron oxide grains are roughly 100 nm across) in a matrix including silicon and carbon, suggesting a super-thermite composite. Red chips when ignited produce very high temperatures even now, several years after the 9/11 tragedy, as shown by the bright flash observed and the pro-

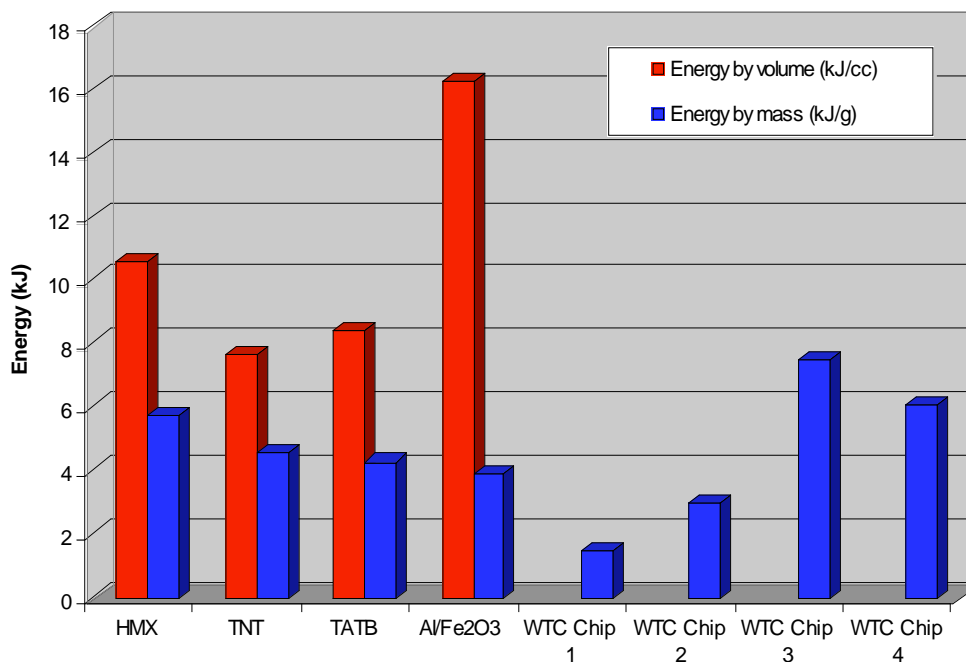


Fig. (30). Energy release for monomolecular explosives HMX, TNT and TATB, for energetic composite Al/Fe₂O₃, [21] and energy release by mass for four red/gray chips found in the WTC dust as measured in a Differential Scanning Calorimeter.

duction of molten iron-rich spheres (see photomicrographs in Fig. (20) above). Correspondingly, the DSC tests demonstrate the release of high enthalpy, actually exceeding that of pure thermite. Furthermore, the energy is released over a short period of time, shown by the narrowness of the peak in Fig. (29). The post-DSC-test residue contains microspheres in which the iron exceeds the oxygen content, implying that at least some of the iron oxide has been reduced in the reaction. If a paint were devised that incorporated these very energetic materials, it would be highly dangerous when dry and most unlikely to receive regulatory approval for building use. To merit consideration, any assertion that a prosaic substance such as paint could match the characteristics we have described would have to be accompanied by empirical demonstration using a sample of the proposed material, including SEM/XEDS and DSC analyses.

8. What Future Studies are Contemplated?

We observe that the total energy released from some of the red chips exceeds the theoretical limit for thermite alone (3.9 kJ/g). One possibility is that the organic material in the red layer is itself energetic. Determination of the chemical compound(s) involved in the organic component of the red material would promote understanding. Further studies of the red material (separated from the gray material) compared to known super-thermite variants using DSC, TGA, FTIR (etc.) analyses would certainly be in order. In particular, NMR and GC-mass spectroscopy and related studies are urged to identify the organic material.

We have observed that some chips have additional elements such as potassium, lead, barium and copper. Are these significant, and why do such elements appear in some red chips and not others? An example is shown in Fig. (31) which shows significant Pb along with C, O, Fe, and Al and displays multiple red and gray layers.

In addition, the gray-layer material demands further study. What is its purpose? Sometimes the gray material appears in multiple layers, as seen in Fig. (32).

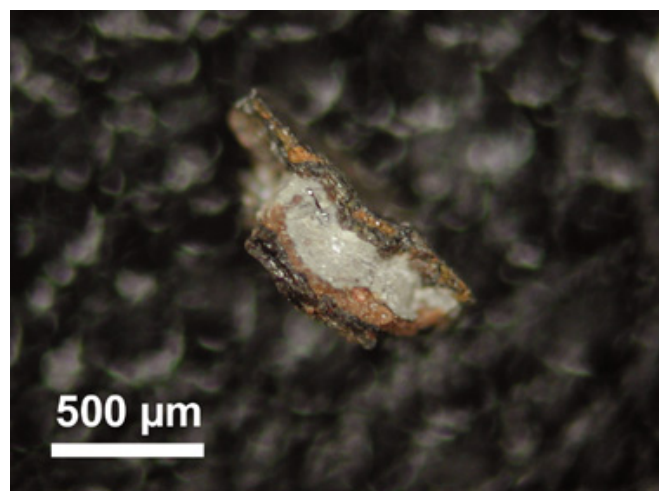


Fig. (31). Photomicrograph of a red/gray chip found in sample 3, showing multiple layers and an unusual light-gray layer between the red layers.

The red-mesoporous material is on the left in this view, with the touching dark-gray layer next and a lighter-gray material on the right as seen in a photograph of the same chip (right hand image in Fig. (32)). The gray layer in contact with the red layer has the XEDS spectrum shown in Fig. (33) in which iron is not seen, while the outer gray material had an XEDS spectrum just like those displayed in Fig. (6).

Thus, the middle-layer gray material contains carbon and oxygen and presumably also contains hydrogen, too light to be seen using this method. Since the gray inner layer appears between two other layers, it may be a type of adhesive, binding a red porous thermite material to another, iron-rich material. One might speculate that the red thermite material has been attached to rusty iron by an adhesive. The cooling effect of the iron in such close proximity, acting as a heat sink, might quench the reaction and explain the fact that unreacted red thermite material, always found by us in thin layers, remains in the dust. These hypotheses invite further experiments.

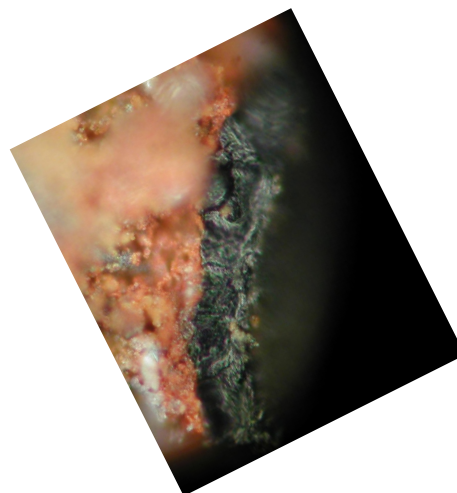
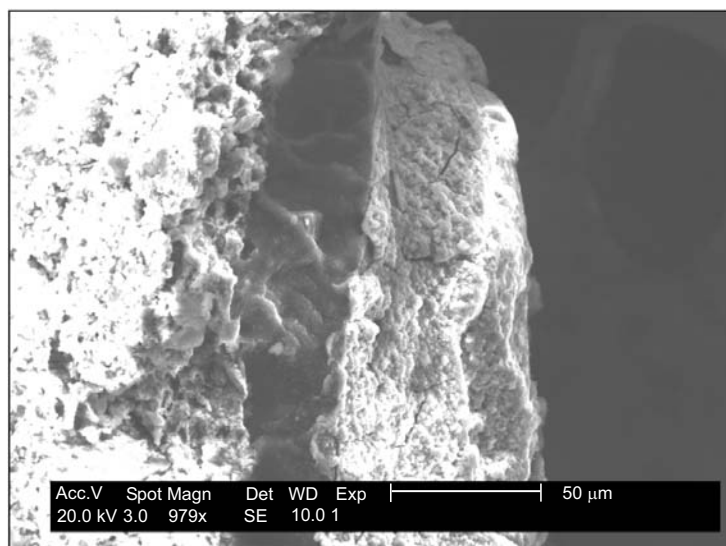


Fig. (32). Close-up SEM image of the chip pictured on the right, the same chip but not precisely the same spot. This chip had been treated in MEK solvent so that the red layer has expanded and porosity is evident.

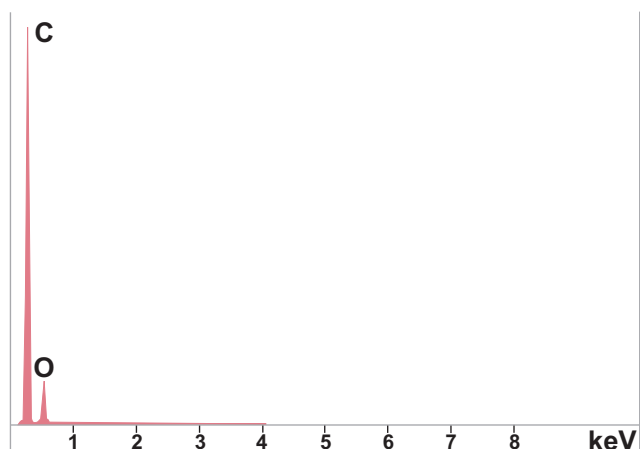


Fig. (33). XEDS spectrum for gray layer which touches the red layer of the chip shown above.

No red/gray chips having the characteristics delineated here were found in dust generated by controlled demolition using conventional explosives and methods, for the Stardust Resort & Casino in Las Vegas (demolished 13 March 2007) and the Key Bank in Salt Lake City (demolished 18 August 2007). Of course, we do not assume that the destruction of the WTC skyscrapers occurred conventionally.

The red material does burn quickly as shown in the DSC, and we have observed a bright flash on ignition, but determination of the burn rate of the red material may help to classify this as a slow or fast explosive. It may be that this material is used not as a cutter-charge itself, but rather as a means to ignite high explosives, as in super-thermite matches [30]. Having observed unignited thermitic material in the WTC residue, we suggest that other energetic materials suitable for cutter charges or explosives should also be looked for in the WTC dust. NIST has admitted that they have not yet looked for such residues [11].

CONCLUSIONS

We have discovered distinctive red/gray chips in significant numbers in dust associated with the World Trade Center destruction. We have applied SEM/XEDS and other methods to characterize the small-scale structure and chemical signature of these chips, especially of their red component. The red material is most interesting and has the following characteristics:

1. It is composed of aluminum, iron, oxygen, silicon and carbon. Lesser amounts of other potentially reactive elements are sometimes present, such as potassium, sulfur, lead, barium and copper.
2. The primary elements (Al, Fe, O, Si, C) are typically all present in particles at the scale of tens to hundreds of nanometers, and detailed XEDS mapping shows intimate mixing.
3. On treatment with methyl ethyl ketone solvent, some segregation of components occurred. Elemental aluminum became sufficiently concentrated to be clearly identified in the pre-ignition material.

4. Iron oxide appears in faceted grains roughly 100 nm across whereas the aluminum appears in thin plate-like structures. The small size of the iron oxide particles qualifies the material to be characterized as nano-thermite or super-thermite.
5. Analysis shows that iron and oxygen are present in a ratio consistent with Fe_2O_3 . The red material in all four WTC dust samples was similar in this way. Iron oxide was found in the pre-ignition material whereas elemental iron was not.
6. From the presence of elemental aluminum and iron oxide in the red material, we conclude that it contains the ingredients of thermite.
7. As measured using DSC, the material ignites and reacts vigorously at a temperature of approximately 430°C , with a rather narrow exotherm, matching fairly closely an independent observation on a known super-thermite sample. The low temperature of ignition and the presence of iron oxide grains less than 120 nm show that the material is not conventional thermite (which ignites at temperatures above 900°C) but very likely a form of super-thermite.
8. After igniting several red/gray chips in a DSC run to 700°C , we found numerous iron-rich spheres and spheroids in the residue, indicating that a very high-temperature reaction had occurred, since the iron-rich product clearly must have been molten to form these shapes. In several spheres, elemental iron was verified since the iron content significantly exceeded the oxygen content. We conclude that a high-temperature reduction-oxidation reaction has occurred in the heated chips, namely, the thermite reaction.
9. The spheroids produced by the DSC tests and by the flame test have an XEDS signature (Al, Fe, O, Si, C) which is depleted in carbon and aluminum relative to the original red material. This chemical signature strikingly matches the chemical signature of the spheroids produced by igniting commercial thermite, and also matches the signatures of many of the microspheres found in the WTC dust [5].
10. The carbon content of the red material indicates that an organic substance is present. This would be expected for super-thermite formulations in order to produce high gas pressures upon ignition and thus make them explosive. The nature of the organic material in these chips merits further exploration. We note that it is likely also an energetic material, in that the total energy release sometimes observed in DSC tests exceeds the theoretical maximum energy of the classic thermite reaction.

Based on these observations, we conclude that the red layer of the red/gray chips we have discovered in the WTC dust is active, unreacted thermitic material, incorporating nanotechnology, and is a highly energetic pyrotechnic or explosive material.

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Ray Griffin, Mike Berger, Frank Carmen, Richard Gage, Shane Geiger, Justin Keogh, Janice Matthews, John Parulis, Phillipe Rivera, Allan South and Jared Stocksmith for elucidating discussions and encouragement. Thanks to John Parulis for gathering samples of residues from reacted commercial thermite.

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118 Witnesses: The Firefighters' Testimony to Explosions in the Twin Towers

Graeme MacQueen
August 21, 2006

One of the greatest mysteries of September 11, 2001 is the collapse of the Twin Towers. Claims that explosions contributed to the collapses were made on 9/11 and have persisted, but studies supportive of the U.S. government's account of events have ignored or denied these claims. A great deal is at stake in this debate. If explosions were critical to the collapses, the official al Qaeda narrative may need to be radically altered or abandoned altogether.

In January, 2006 an article by David Ray Griffin appeared entitled, "Explosive Testimony: Revelations about the Twin Towers in the 9/11 Oral Histories." [1] Drawing on a collection of oral histories from the New York Fire Department (FDNY), Griffin argued the case for controlled demolition of the towers. I found myself intrigued by the data he had used and impressed by his method, but I decided there was room for further research. I wanted answers to two questions.

- (1) Are the roughly 31 witnesses to explosions quoted by Griffin the total of all witnesses to explosions in these sources, or are there others he does not mention?
- (2) Are there witnesses in these sources whose testimony supports the non-explosive collapse of the Towers—the U.S. government's perspective?

I decided to read the primary sources in order to answer these questions. This paper gives the results of my research.

I am interested, in this paper, in direct perception and immediate interpretation. I want to know what witnesses saw, heard and thought on 9/11 at the scene of the crime. Although I shall discuss briefly the fact that some witnesses later changed their minds about what they had experienced, this is not my central focus.

I do not claim to have proven that the Towers were brought down with explosives, but I believe the eyewitness testimony assembled and discussed here strengthens the argument that explosions were critical to the collapses.

The Appendices give the evidence I have culled from the oral histories and will allow the reader to form an independent judgment.

The Body of Evidence

According to Jim Dwyer of the New York Times, the FDNY oral histories were "originally gathered on the order of Thomas Von Essen, the city fire commissioner on Sept. 11, who said he wanted to preserve those accounts before they became reshaped by a collective memory." [2] The oral histories constitute about 12,000 pages of testimony by 503 FDNY firefighters, emergency medical technicians and paramedics collected from early October, 2001 to late January, 2002. Mr. Von Essen's prophetic act has given us a remarkably rich body of narrative material.

Initially, the city of New York refused to release this material, but after a lawsuit by the New York Times and some of the 9/11 victims' families the city was ordered to release them. The New York Times then posted them on its internet site, where they have been available (with some deletions) to the public since August, 2005.[3]

As we learn from the oral histories themselves, the interviews took place in various FDNY offices and were conducted by a variety of FDNY officers. Sometimes only the interviewer and the interviewee were present, while at other times additional persons were present. Locations, dates, times, and names of those present are all meticulously recorded.

It is impossible to tell simply by reading the recorded interviews if the atmosphere in which the interviews were conducted was coercive in any way, but I have found no evidence of this. In many cases the interviewer simply asks the interviewee to recount what he or she experienced on 9/11. Thereafter, some interviewers intervene frequently with questions, while others are largely silent. Interventions typically seek to establish details of times and locations, of the actions of various chiefs and firefighters, and of the progress of operations. Interviewers usually do not show any special interest in the topics central to my concerns—the collapses of the Towers and the use or non-use of explosions in these collapses—but their curiosity and attention are sometimes crucial to the eliciting of critical information.[4] There are very few cases where the interviewer may be said to have “led” the witness toward the explosion option.[5]

Most interviewees appear to have given their testimony spontaneously, although some obviously read from a report they had written.[6] For the most part, interviewees appear to have been given the opportunity to structure their narratives as they wished.

As we know, the New York firefighters were used by the U.S. government after 9/11 as symbols of heroism, but there are in this collection very few heroic narratives. Many accounts are actually structured as anti-heroic narratives--the firefighters arrive to save people and end up running for their lives as the Towers collapse.[7] Others are outright chaos narratives, where people mill around hopelessly with no plan and where their skills are useless.[8]

I find many of the stories powerfully told, with vulnerability and humanity. Patriotism is no more than an occasional flash in these accounts, and there are extremely few witnesses who try to use their experiences to advance the U.S. government's war on terror.

Despite variations in the stories, as a body of narrative the collection gives prominence to five perceptions that were shocking to the witnesses:

- (1) the perception of the Towers burning:[9]
- (2) the perception of body parts littering the streets as the firefighters and medics arrive on the scene:[10]
- (3) the perception of people in the Towers leaping to their deaths:[11]
- (4) the perception of the Towers collapsing, and, especially, the perception of the initiation of these collapses;
- (5) the perception of, and entrapment in, the cloud of pulverized building flowing down the streets after the collapses.[12]

It is the fourth of these shocking perceptions that is the focus of the present study.

The Surprising Collapses

Although the 9/11 Commission Report acknowledges that fire chiefs on the scene thought the collapse of the Towers was impossible,[13] it is worth emphasizing the unanimity of the FDNY personnel on this point. Here are typical comments:

“...it took me a long time before I could accept the fact that even after you could see that the tower wasn't there you said it had to be there somewhere. You couldn't believe that it had come down.” (Captain Michael Donovan, 9110205)

“I was kind of in disbelief that the building was actually collapsing. I kind of stopped to say, well, maybe that was a piece of the facade. I couldn't believe that the entire building was going to collapse in one heap.”(Captain Charles Clarke, 9110250)

“Once again, I'm doing this 23 years...This changed all the rules. This changed all the rules. This went from a structure to a wafer in seconds, in seconds. I couldn't believe the speed of that tower coming down. I heard the rumble, I looked up, debris was already 50 feet from the ground...” (Sergeant James Canham, 9110370)

“I've worked in Manhattan my whole career in high rises and everything else...you looked back, all you see--you know how fast those buildings came down...it just doesn't click that these buildings can come down...you just couldn't believe that those buildings could come down...there's no history of these buildings falling down.” (Lieutenant Warren Smith, 9110223)

“whoever in their right mind would have thought that the World Trade Center would ever fall down...Nobody in the world, nobody ever would ever have thought those buildings were coming down.” (EMS Captain Mark Stone, 9110076)

Hypotheses

Many hypotheses have been put forward to explain the collapse of the Twin Towers, but we can think of these hypotheses as falling into two sets, the set of hypotheses according to which explosions were a critical factor in the collapses (which I shall call the set of explosion hypotheses, or EH) and the set according to which explosions were not a critical factor in the collapses (non-explosion hypotheses, or NEH). EH would include, for example, suggestions of explosives on the planes, mini-nukes in the buildings, or multiple pre-positioned charges—the last suggestion being, for good reasons, the most popular—which cut the columns, pulverized the building, and so on. NEH would include various combinations of failed trusses, weakened core and perimeter columns, sagging floors and the like, typically said to have been caused by a combination of airplane impact and heat from burning jet fuel, which somehow resulted in progressive and total collapse of the buildings.[14]

Testing the Hypotheses through Observation

Let me begin by stressing that I am interested here only in how these sets of hypotheses are verified and falsified through *the direct accounts of witnesses*. I exclude all evidence, even where it is indirectly based on eyewitness accounts, that involves measurement, analysis of physical materials, or photographic or seismic records. Obviously, all these forms of evidence are valid, but they are not my focus in this paper.

(i) How, then, can EH be tested by the observations of those present at the scene? What, among such observations, will tend to verify EH and what will tend to falsify it?

If witnesses perceive or think they perceive explosions that they judge to be critical to the collapse of the towers,[15] this will constitute positive evidence in support of EH. All testimony that supports NEH will count against EH.

Whether or not silence on the part of witnesses—no mention of explosions--should count against EH is a difficult matter. Arguments from silence have many dangers. I am prepared to say this: the nature of observational evidence is such that the greater the number of witnesses, the richer the detail of their observations, and the more their testimonies complement each other, the stronger the case will be. I see no way to set a decisive boundary, a number of testimonies beneath which EH fails and beyond which it succeeds. There will be an irreducible degree of subjective judgment.

(ii) How can NEH be tested by the observations of those present at the scene? What will tend to verify and what will tend to falsify it?

We can divide non-explosion hypotheses into two main sub-sets, those that focus on the initial causes of structural failure of the Towers and those that focus on the progressive and total collapse of the Towers. The hypothesis of the National Institute of Standards and Technology is in the former class. NIST has a clear hypothesis concerning the initiation of the collapses of the upper stories of the Towers, but it has nothing of substance to say about progressive and total collapse.[16] Even if our main interest lay in the initiation of the collapse of top floors (which it does not), we would find that the evidence supporting this is, for the most part, hidden from observers and, where visible, is ambiguous and could easily support EH.[17] We therefore find that NIST's hypothesis, and similar hypotheses focusing on initial causes, offer us little that we can test through observation. This does not mean these hypotheses are false, it simply means we must pass over them in silence when we are looking for positive evidence from observers. The proponents of these hypotheses will have to look elsewhere for supporting evidence.

Of the second sub-set of NEH, the most common over the years since 9/11 has been the well-known "pancake" hypothesis.[18] Regardless of what the initiating causes of collapse may be, says this hypothesis, progressive and total collapse came about through successive, linked and cumulative falling or "pancaking" of floors.

The pancake hypothesis became very influential as an explanation of Tower collapse soon after 9/11. It was later adopted in the 9/11 Commission Report of 2004 [19] and it continues to be influential among those unfamiliar with research on the collapses. The evidence and argument assembled against this hypothesis seem to me, however, to be definitive, and it is not surprising that the 2005 NIST report avoids endorsing pancaking. I believe that this hypothesis is simply no longer viable.[20]

At the time the interviews with members of the FDNY were being conducted, the pancake hypothesis was well known and was felt by many people to have been proven correct. I have no doubt that this is why FDNY members make fairly common mention of pancaking. What are we to do with this testimony?

We notice, first of all, that not all witnesses regard pancaking and critical explosions as mutually exclusive. Williams Reynolds says:

“I was distracted by a large explosion from the south tower and it seemed like fire was shooting out a couple of hundred feet in each direction, then all of a sudden the top of the tower started coming down in a pancake...” [21]

Second, we can in most cases not tell for certain what witnesses mean when they speak of pancaking. Perhaps some of them simply mean that they saw progressive collapse of the building, starting near the top and continuing on down.

(This difficulty is not restricted to the term “pancaking:” it applies to several terms I have used in my research. When people speak of the buildings “imploding,” for example, they may merely mean that the buildings collapsed rapidly on themselves. But I believe most of the terms on which my research focuses, such as “explosion” and “bomb,” are less subject to ambiguity.)

I have decided that it is important, regardless of the status of the pancake hypothesis today, to record all those cases in the oral histories where witnesses appear to support this hypothesis. These cases are, at the very least, important as evidence of how theories about the collapses evolved among witnesses over time. The oral histories show that many people who originally thought they had witnessed critical explosions were later persuaded that they had not, and it appears that the pancake hypothesis was the main alternative they were offered.

In any case, I have been able to find only one other type of report in this material that clearly supports NEH, namely cases where witnesses directly deny that they witnessed explosions.

In short, support for NEH, for the purposes of this study, consists of testimony denying explosions and testimony supporting the pancake hypothesis.

Falsification of NEH is quite straightforward. NEH and EH cannot both be true, so all evidence that supports EH weakens NEH. Note that it weakens not only the pancake hypothesis but all non-explosion hypotheses. Where observational evidence is concerned, falsification should be thought of as a cumulative process, and we shall want to look at both the quantity and quality of our evidence.

Evidence Supporting Sets of Hypotheses

(i) I have established seven categories of evidence to help organize the cases that will count in favour of EH:

- (a) cases where witnesses use the words “explode,” “explosion” or variants to describe what they perceived;
- (b) cases where witnesses use the term “blast” to refer to what they saw or heard;
- (c) cases where witnesses use the terms “blew up,” “blew out” or variants to describe what they perceived;
- (d) cases where witnesses use the terms “bomb” or “secondary device” (a term for an explosive device timed to go off after care-givers have gathered to give aid) to describe what they perceived;

- (e) cases where witnesses use the terms “implode,” “implosion” or variants to describe what they perceived;
- (f) cases that I judge to be strongly suggestive of planned demolition;
- (g) other cases that are, in my judgment, suggestive of critical explosions.

I have decided on the following exclusions.

All cases will be excluded where sounds are described whose interpretation is ambiguous. Thus, “bang” and “boom” are excluded (though I have included “ba-ba-ba-boom”), unless accompanied by a more explicit term such as “explode,” since they might have non-explosive causes such as floors falling on other floors. The ubiquitous “rumble” is excluded, as is the very common “roar” and a host of similes and metaphors referring to freight trains, jet planes and the like. All these sounds might be expected to accompany a catastrophic collapse of a 110 story building, whatever the cause of the collapse.

Although I have accepted references to “volcano,” I have excluded “earthquake” and related metaphors and descriptions from my list, thereby excluding one of David Ray Griffin’s main categories.[22] I recognize that Griffin has good reasons for including selected cases of the shaking of the earth: when this shaking occurs very early in the sequence of events, and especially before there is any visible sign of collapse in the Towers, it suggests the shaking has an explosive origin and is not simply the expected accompaniment of a massive building collapse. But I have decided to err on the side of caution and exclude all such references, leaving it to other researchers to sort the wheat from the chaff.

I have included “blast” references only in selected cases, and especially when these appear to refer to what witnesses saw or heard, as opposed to what they felt. Many witnesses refer to feeling the massive pressure wave that accompanied or followed the collapse, and they sometimes use the term “blast” in this connection. But such a pressure wave would be expected to accompany the sudden collapse of large buildings and is freely described by the 9/11 Commission Report.[23] Again, as with the shaking of the earth, I have tried to err on the side of caution. A researcher more familiar than I with the signs of explosions and blast waves might be able to sort out these cases.

I have excluded all references to possible effects of explosions where the explosions themselves are not named or described. I therefore exclude descriptions of lobby damage found when the firefighters arrived, which may be evidence of early explosions low in the building, as well as the debris cloud resulting from the mid-air pulverization of the Towers. Throughout, I have tried to keep my focus on what the witnesses themselves *perceived or thought they were perceiving*.

When we apply the above criteria and restrictions we are left with 177 cases from 118 witnesses. (The former number is higher than the latter because a given witness may use more than one term or category in an account.) The cases are listed according to category in Appendix A and the testimony is given *in extenso*, in alphabetical order according to the names of the witnesses, in Appendix B.

(ii) I have found it sufficient to establish three categories of evidence for the much smaller number of cases offering evidence that supports NEH:

- (a) cases where witnesses deny perceiving explosions;

- (b) cases where witnesses use the words “pancake,” “pancaking” or variants to describe what they perceived, while omitting reference to explosions;
- (c) cases where, although they do not use the above words, witnesses describe processes that suggest pancaking in the absence of explosions.

Note that valid cases may not be retrospective (someone explicitly tells us that he or she decided *after the event* that what was seen was pancaking), nor may they be indirect (a person sees the event on television or passes on the opinion of a friend).

When we apply the above criteria and restrictions we are left with ten cases from ten witnesses. These are given, according to category, in Appendix C.

Failure to Mention Explosions: the Argument from Silence

If there were, in fact, explosions, why do the majority of FDNY witnesses whose testimony has been recorded not mention explosions? I believe that this argument from silence must be faced, despite its problematic nature. Let us consider the numbers. We have 118 witnesses out of a pool of 503. Over 23 per cent of our group are explosion witnesses. In my judgment, this is a very high percentage of witnesses, especially when we consider that:

- (a) Interviewers were typically not asked about explosions and, in most cases, were not even asked about the collapses of the towers. What testimony we have was volunteered, and it therefore represents not the maximum number of witnesses to explosions but the minimum number.
- (b) Some FDNY witnesses were not near the Towers when collapse occurred.[24]
- (c) Some witnesses were preoccupied with issues other than the collapses: their accounts reveal little interest in the events on which we are focusing.[25]
- (d) Some accounts are extremely succinct and include little detail.[26]
- (e) Many accounts include references that are, while ambiguous, not inconsistent with explosions. In this category I include “rumble,” “boom” and the like.

In my judgment, the lack of references to explosions among the majority of witnesses is easily explained and does little to weaken EH.

The Quality of the Cases

Since one of the main aims of my research has been to take seriously the perceptions and interpretations of FDNY witnesses (in a way that the 9/11 Commission Report and the NIST report do not), I find myself reluctant to “explain away” statements that these witnesses have made. I believe it is fair to say, however, that the cumulative impact of the NEH witnesses is weak not merely because of the paucity of these accounts but because most of them can, without difficulty, be accommodated within EH. Of the ten cases, I would say that Terranova’s (9110168) is the strongest. He hears the rumble and the succession of booms but interprets these within the pancake framework, because, he says, he directly saw this pancaking. Fair enough. The Sanchez account (9110128) I would rate a close second, but its reference to a shaking of the

earth early in the sequence of events could indicate explosion. Several other accounts include similar difficulties: in addition to the ambiguity already mentioned (what do they mean by “pancaking?”) we find references to “the earthquake feel” (Harris, 9110108); the odd expression “machine gun” to refer to pancaking (Salvador, 9110474); and reference to the pancaking starting much lower (70th floor of the South Tower) than it should have (Holowach, 9110114).

In my view, as evidence in support of the set of non-explosion hypotheses this list of cases is not strong. It can be accommodated by the alternative set of hypotheses.

What of the EH cases? Can they be accommodated by the set of non-explosion hypotheses? I do not believe so.

We begin by facing the simple number of individual witnesses (118) and the even greater number of references, direct or indirect, in their accounts to explosions.

We next have to deal with the rich, mutually supportive detail of these accounts. True, there are apparent inconsistencies: one person will refer to a single big explosion, another will say there were three explosions, while yet another will claim to have heard seven. I have made no attempt to sort out all these claims and cannot pretend to know if they are ultimately compatible. But, on the other hand, I cannot read this material without being struck by the ways in which the witnesses’ testimony is not merely cumulative but complementary and multidimensional.

Griffin has discussed this multidimensionality while making his case for planned demolition, and I direct the reader to his discussion.[27] Among the phenomena to which he draws our attention are: the horizontal ejection of debris early in the buildings’ collapses; the huge clouds of fine dust; the explicit discussion by the firefighters, in the midst of these events, of the possibility that they were witnessing planned demolition; and multiple, heard “pops” with apparently related, visually perceived “flashes,” which occur in patterns, temporally and spatially, in ways that suggest planned demolition. I fail to see how any of the non-explosion hypotheses put forward to date, including the pancake hypothesis, can accommodate all of these phenomena.

The Changing of Minds

As will be apparent to anyone who reads through Appendix B, many members of the FDNY came to believe, in the period between 9/11 and their interviews, that they had been mistaken in interpreting what they perceived as evidence of explosions. Some suggest in their interviews that they now (as of the interview date) realize they witnessed non-explosive collapse, with the implication that they face the task of fitting what they originally perceived into the new framework. A few adopt the new framework readily; others do so reluctantly; and still others are unwilling to do so at all. I have not attempted in Appendix B to delete references to change of mind: on the contrary, I have included them because I find them fascinating and instructive. In some cases we can almost feel the struggle of the interviewee to accept the new interpretive frame.

Charles Wells appears to be making a valiant effort to avoid mentioning explosions before he at last gives in:

“We got to the point of being in between the Vista Hotel and the World Trade Center, at which point we heard a -- we felt a loud -- a very strong vibration, shaking, and a loud noise like a

subway train coming through a station at speed, like a jet engine at full throttle. It was a roaring sound...

[then, later in the narrative]

Everybody's heads were all popping up now. Everybody is digging out, so I ran into a couple of firefighters and I said, 'Well, you know, what the hell happened?' Some kind of an explosion, he goes, and that's what I thought it was..."[28]

Maybe the non-explosion interpretation gained ground as the result of reflection, reading and a gradual maturing of judgement. In this case we might speak of a process of education. But maybe the change in interpretation resulted from an undercutting of witnesses' perception by the theories and claims of "experts," institutional superiors and government leaders, in which case we might prefer to speak of the "re-education" or indoctrination of the FDNY witnesses.

I mentioned earlier the concern of Mr. Von Essen that the oral histories be recorded "before they became reshaped by a collective memory." Now we see the soundness of his intuition. Early in 2004 Rodger Herbst suggested that, in explaining the collapse of the towers, explosion hypotheses came first and were only gradually supplanted by "politically correct revisionist theories." [29] We now have solid evidence suggesting that, for the FDNY, non-explosive collapse is, indeed, a revisionist theory.

The Oral Histories, the 9/11 Commission Report, and the NIST Report

The 9/11 Commission and NIST both resorted to legal threats against the city of New York in order to obtain the 503 oral histories.[30] They succeeded in gaining access to this material, and we would expect them to make use of it.

It appears (references are somewhat unclear) that the Commission did, in fact, make fairly extensive use of the oral histories in composing the crucial Chapter 9 of its 2004 Report, which deals with the crashing of the planes into the Towers and the subsequent collapse of these buildings.[31] The Report refers to the oral histories to verify the condition of civilians in the stairwells of the Towers, the nature of rescue actions taking place on various floors of the buildings, and so on. It appears to regard the oral narratives as trustworthy; establishes no critical distance from them; seems to consider them straightforward descriptions of the events of the day.

But what about all the references in the FDNY material to explosions? The Report makes no mention of them.

Chapter 9 contains the only reference to explosion hypotheses in the entire 9/11 Commission Report:

"When the South Tower collapsed, firefighters on upper floors of the North Tower heard a violent roar, and many were knocked off their feet...those firefighters not standing near windows facing south had no way of knowing that the South Tower had collapsed; many surmised that a bomb had exploded..."[32]

The note supporting this statement is to a body of later (2004) interviews of firefighters by the Commission, not to the 503 oral histories. Why is this? And what are we to make of the

paragraph? A reader unfamiliar with the evidence of the oral histories might conclude that the explosion hypothesis was restricted to a set of firefighters situated in the North Tower when the South Tower collapsed; that the firefighters holding this hypothesis were, moreover, a subset with impeded perception; and that these firefighters mistook the collapse of the South Tower for the explosion of a bomb. As the reader will discover from Appendix B, all three statements are extremely misleading as general indications of the nature of explosion testimony. FDNY members speaking of explosions were in a wide variety of locations; many were looking directly at the Towers when they felt they perceived explosions; and they were quite capable of distinguishing the collapse from the explosions they felt were associated with it.

How is it that oral histories worthy of reference one moment are completely ignored as soon as they challenge the official narrative?

And what about the NIST final report? NIST had the oral histories, but its report declines to describe the nature of the testimony therein. There is brief mention of “documents of investigative first-person interviews” obtained from the FDNY but we learn nothing about these documents.[33] When speaking of the FDNY, the report praises the quality of the judgments FDNY personnel made about the condition of the buildings on 9/11,[34] but we find not a single reference to FDNY testimony about explosions.

In the Report’s Executive Summary we read: “NIST found no corroborating evidence for alternative hypotheses suggesting that the WTC towers were brought down by controlled demolition using explosives planted prior to September 11, 2001.”[35] In support of this the Abstract says that the visual evidence from videos and photos “clearly showed that the collapse initiated at the fire and impact floors,”[36] as if this were an uncontroversial assertion and as if it settled the matter. If we expect a fuller discussion of the explosion hypothesis in the body of the text we will be disappointed. We find a simple repetition of these same few lines.[37]

Once again we discover that the testimony of the FDNY is quickly resorted to when it is helpful to the official narrative and is quietly pushed to one side when it threatens to disturb this narrative. We have known for some time that these reports silence the voices of direct witnesses; now we know they silenced 118 voices.

Conclusions

The two questions with which I began my research have now been answered:

- (1) Griffin’s 31 witnesses to explosions in the FDNY oral histories are a subset of a much larger body of witnesses, which I have estimated as having 118 members.**
- (2) Support for non-explosive collapse is present in this material but is scarce. I have found ten witnesses.**

I do not know whether the FDNY witnesses constitute a representative sample of 9/11 witnesses, but it is possible that they do. Certainly, there is no lack of testimony to explosions from those outside the FDNY,[38] and I see no obvious reason why firefighters and medics would be more prone than others to feel that they were witnessing explosions. If they constitute a representative sample, then a minimum of 23% of all witnesses to the Towers’ collapses appear to have perceived, or thought they perceived, explosions that brought down the Towers.

The implications of this for our understanding of September 11, 2001 are very, very serious.

NOTES

1. January 26, 2006.

<http://www.911truth.org/article.php?story=20060118104223192>

2. “City to Release Thousands of 9/11 Oral Histories Today.” August 12, 2005.

3.

http://graphics8.nytimes.com/packages/html/nyregion/20050812_WTC_GRAPHIC/met_WTC_histories_full_01.html

4. Note the role of the interviewer in the following exchange:

A. “...Then that’s when I kept on walking close to the south tower and that’s when that building collapsed.”

Q. “How did you know that it was coming down?”

A. “That noise. It was a noise.”

Q. “What did you hear? What did you see?”

A. “It was a frigging noise. At first I thought it was--do you ever see professional demolition where they set the charges on certain floors and then you hear ‘pop, pop, pop, pop, pop’?”

[Daniel Rivera, 9110035, p. 9]

5. The only obvious case of leading that I have found is the following:

Q. “What did you think you were responding to at that point?”

A. “Well, we knew we had fire. We knew we had partial collapse.”

Q. “From an explosion or --”

A. “Yes...” [William Ryan, 9110117, p. 3]

6. The clearest example of a written report is that of Hugh Mettham, 9110441.

7. E.g., Firefighter Myers, 9110052; EMT Rodriguez, 9110480.

8. E.g., EMT Longo, 9110059.

9. E.g., as in Paramedic Pierce, 9110485, p. 3.

10. E.g., as in EMT Penn, 9110203, p. 4.

11. E.g., as in Firefighter Myers, 9110052, pp. 5-6.

12. E.g., as in Deputy Chief Medical Officer Prezant, 9110212, pp. 8ff.

13. *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States* (New York: W. W. Norton, 2004), pp. 291, 302, 320.

14. Two fairly recent articles arguing for the controlled demolition hypothesis are David Ray Griffin, “The Destruction of the World Trade Center: Why the Official Account Cannot Be True.”

<http://www.911review.com/articles/griffin/nyc1.html>

and Steven Jones, “Why Indeed Did the WTC Buildings Collapse?”

<http://www.physics.byu.edu/research/energy/htm7.html>

Non-explosion hypotheses were usefully summarized by Rodger Herbst in his May, 2004, “Mysteries of the Twin Towers.”

<http://www.septembereleventh.org/documents/rodgwtcpdf.pdf>

Of course, since Herbst’s article was written NIST’s final report has appeared:

National Institute of Standards and Technology, *Final Report on the Collapse of the World Trade Center Towers*. Department of Commerce, U.S.A., Sept. 2005.

15. EH is not concerned with minor electrical or gas explosions such as might accompany any major fire. It is concerned with explosions that directly contributed to the fall of two 110-story buildings. No single witness can establish such causation, but the accumulation of accounts where the explosion directly precedes the collapse and is held by witnesses to have caused it makes causation increasingly plausible. The accounts in Appendix B are of this sort.

16. NIST’s now famous “global collapse ensued” hides a multitude of academic sins. As the authors of the report must be aware, they have given no evidence to support their view that the collapse of upper floors led, or should have led, to progressive and total collapse. See *Final Report*, p. 146.

Jim Hoffman has written an excellent critique of the NIST report, “Building a Better Mirage: NIST’s 3-Year \$20,000,000 Cover-up of the Crime of the Century.” Version 1.0, Dec. 8, 2005.

<http://911research.wtc7.net/essays/nist/index.html>

17. This includes the buckling or bowing of perimeter columns described in the NIST report (p. 30 ff.), which could have had various causes.

18. See Herbst’s “Mysteries of the Twin Towers.”

19. P. 308.

20. See, e.g., Griffin's, "The Destruction of the World Trade Center." See also:

Kevin Ryan, "Propping Up the War on Terror: Lies about the WTC by NIST and Underwriters Laboratories."

http://www.scholarsfor911truth.org/RyanK_PostingVersion.htm

Nila Sagadevan, "Free-falling Bodies: Collapse Theory Fails Reality Check".

http://www.911blimp.net/prf_FreeFallPhysics.shtml

Judy Wood, "A Refutation of the Official Collapse Theory".

<http://janedoe0911.tripod.com/BilliardBalls.html>

21. 9110288, p. 3.

22. "Explosive Testimony," pp. 4-5.

23. "The building collapsed into itself, causing a ferocious windstorm." P. 305

24. E.g., as in Lieutenant Lowney, 9110468.

25. E.g., as in Firefighter Saracelli, 9110033.

26. E.g., as in Firefighter Winkler, 9110236.

27. "Explosive Testimony." See also his "The Destruction of the World Trade Center."

28. Charles Wells, 9110163, p. 8.

29. "Mysteries of the Twin Towers," pp. 1 ff.

30. Dwyer, "City to Release Thousands of 9/11 Oral Histories Today."

31. The Commission's notes do not always make it easy for us to identify its sources, but I assume that the "500 internal FDNY interview transcripts" referred to in note 209, p. 554 are our oral histories and that many of the notes to chapter 9 (99, 102, 109, 116, 117, 119 and so on) include references to this material.

32. 9/11 Commission Report, p. 306. I exclude the references to bomb threats aboard three of the four allegedly hijacked planes, which are discussed in the Report, pp. 6-13. Although there are materials here from which a form of EH could be constructed, the Report declines the opportunity to do so by accepting the FBI's conclusion that there was no evidence of explosives at the collapse site and that the bomb threat was therefore fake (p. 13).

- 33. Final Report, p. 163.
- 34. Final Report, p. pp. 166-167.
- 35. Final Report, p. xxxviii.
- 36. Final Report, p. xxxviii.
- 37. Final Report, pp. 146, 176.
- 38. See, e.g., Griffin, "Explosive Testimony" as well as video footage such as that in "9/11 Revisited: Were explosives used?"

<http://www.911revisited.com/video.html>

APPENDIX A: LIST OF EXPLOSION CASES BY CATEGORY

EXPLOSION CASES (TERM): 83 CASES

John Coyle, 9110406	Gregg Hansson, 9110017
Frank Cruthers, 9110179	Mala Harrilal, 9110186
Paul Curran, 9110369	Russell Harris, 9110015
Kevin Darnowski, 9110202	Timothy Hoppey, 9110229
John Delendick, 9110230	James Ippolito, 9110342
Richard Banaciski, 9110253	Timothy Julian, 9110386
Dominick DeRubbio, 9110064	Edward Kennedy, 9110502
Karin Deshore, 9110192	George Kozlowski, 9110308
George DeSimone, 9110129	John Lynn, 9110389
Brian Dixon, 9110166	Michael Macko, 9110506
Michael Donovan, 9110205	John Malley, 9110319
James Drury, 9110098	Julio Marrero, 9110162
Kevin Duggan, 9110345	Patrick Martin, 9110510
Christopher Fenyo, 9110295	Edward Martinez, 9110494
Brian Fitzpatrick, 9110256	Orlando Martinez, 9110183
Gary Gates, 9110065	Richard Boeri, 9110302
Kevin Gorman, 9110434	Linda McCarthy, 9110213
Steve Grabher, 9110241	James McKinley, 9110072
Stephen Gregory, 9110008	Craig Monahan, 9110016
Brian Becker, 9110019	Gregg Brady, 9110184

Murray Murad, 9110009
Keith Murphy, 9110323
Kevin Murray, 9110020
Robert Norris, 9110071
Michael Ober, 9110093
Janice Olszewski, 9110193
Joseph Patriciello, 9110378
Thomas Piambino, 9110493
Joseph Rae, 9110294
Gerard Reilly, 9110435
William Reynolds, 9110288
Juan Rios, 9119937
Angel Rivera, 9110489
Terence Rivera, 9110343
Kenneth Rogers, 9110290
William Ryan, 9110117
Stanley Rybak, 9110263
Patrick Scaringello, 9110030
Howie Scott, 9110365
Edward Sheehey, 9110226
Richard Skillington, 9110279
Richard Smiouskas, 9110210

Thomas Spinard, 9110445
Mark Steffens, 9110003
John Sudnik, 9110198
Jay Swithers, 9110172
David Timothy, 9110156
Albert Turi, 9110142
Thomas Turilli, 9110501
Timothy Burke, 9110488
Thomas Vallebuona, 9110418
Stephen Viola, 9110439
William Wall, 9110285
Charles Wells, 9110163
Daniel Williams, 9110289
Edward Cachia, 9110251
Fernando Camacho, 9110318
Frank Campagna, 9110224
Craig Carlsen, 9110505
Jason Charles, 9110486
Roy Chelsen, 9110475
John Citarelli, 9110264
Louis Cook, 9110103

BLAST CASES (TERM): 5 CASES

John Coyle, 9110406

Brian Dixon, 9110166

Patrick Richiusa, 9110305

William Simon, 9110115

Jay Swithers, 9110172

BLOW UP CASES (TERM): 19 CASES

Albert Turi, 9110142

Jason Charles, 9110486

Dean Coutsouros, 9110049

Kenneth Rogers, 9110290

Howie Scott, 9110365

Michael Ober, 9110093

Patricia Ondrovic, 9110048

Joseph Petrassi, 9110449

Stephen Gregory, 9110008

Paul Hyland, 9110374

Kirk Long, 9110509

Joseph Meola, 9110287

John Delendick, 9110230

Richard Banaciski, 9110253

Brian Dixon, 9110166

Michael Donovan, 9110205

Gary Gates, 9110065

Gerard Gorman, 9110420

James Curran, 9110412

BOMB CASES (TERM): 31 CASES

Stanley Trojanowski, 9110292

Albert Turi, 9110142

Thomas Turilli, 9110501

Timothy Burke, 9110488

Kenneth Rogers, 9110290

John Rothmund, 9110112

Richard Smiouskas, 9110210

Thomas Spinard, 9110445

Jay Swithers, 9110172

Janice Olszewski, 9110193

Richard Picciotto, 9110211

Gerard Reilly, 9110435

William Reynolds, 9110288

Angel Rivera, 9110489

Gregg Hansson, 9110017

Timothy Hoppey, 9110229

Timothy Julian, 9110386

Walter Kowalczyk, 9110095

John Malley, 9110319

Julio Marrero, 9110162

John McGimpsey, 9110477

Keith Murphy, 9110323

John Delendick 9110230

George DeSimone, 9110129

Michael Donovan 9110205

Robert Dorritie, 9110299

James Drury, 9110098

James Duffy, 9110444

Brian Fitzpatrick, 9110256

Gerard Gorman, 9110420

Alan Cooke, 9110040

IMPLOSION CASES (TERM): 10 CASES

James Walsh, 9110459
William Walsh, 9110442
Kevin Quinn, 9110339
Timothy Hoppeym, 9110229
David Loper, 9110349
Maureen McArdle-Schulman, 9110110
Michael Mejias, 9110149
Mary Merced, 9110144
Murray Murad, 9110009
Thomas Fitzpatrick (Deputy Commissioner),
9110001

DEMOLITION CASES (DESCRIPTION):
20 CASES

Albert Turi, 9110142
Timothy Burke, 9110488
Edward Cachia, 9110251
Kenneth Rogers, 9110290
Frank Sweeney, 9110113
Kevin Murray, 9110020
Daniel Rivera, 9110035
Steve Grabher, 9110241
Stephen Gregory, 9110008
Maureen McArdle-Schulman, 9110110
Michael Mejias, 9110149
Joseph Meola, 9110287
Richard Banaciski, 9110253
Dominick DeRubbio, 9110064
Karin Deshore, 9110192
Brian Dixon, 9110166
James Drury, 9110098
Christopher Fenyo, 9110295
Thomas Fitzpatrick, 9110001
James Curran, 9110412

OTHER CASES (DESCRIPTION): 10 CASES

Dean Coutsouros, 9110049

Frank Sweeney, 9110113

John Picarello, 9110240

Barrett Hirsch, 9110336

Paul Mallery, 9110312

Maureen McArdle-Schulman, 9110110

David Moriarty, 9110228

John Murray, 9110407

Gary Gates, 9110065

Jerry Gombo, 9110100

APPENDIX B: EXPLOSION CASES, ALPHABETICAL: TEXT AND CONTEXT

Richard Banaciski, 9110253

South Tower:

We were there I don't know, maybe 10, 15 minutes and then I just remember there was just an explosion. It seemed like on television they blow up these buildings. It seemed like it was going all the way around like a belt, all these explosions...Not thinking that this building is coming down. We just thought there was going to be a big explosion, stuff was going to come down. [pp. 3-4]

Brian Becker, 9110019

South Tower [As experienced from inside NT.)

I'd say we were in the 30th or 31st, 32nd Floor, or something like that, and a few of the guys were lying wiped out on the floor, you know, taking a break with their masks off and lying in the hallway when there was a very loud roaring sound and a very loud explosion, and the--it felt like there was an explosion above us... [p. 12]

...

[Again on the subject of the collapse of S T as experienced in NT]

Q. What did you hear when the building starting collapsing the second time? Did you feel -- just started coming down? You didn't hear anything, feel anything?

A. We felt -- our whole building that we were in, when World Trade Center 2 collapsed, that was the first one to collapse. We were in World Trade Center 1. It was a tremendous explosion and tremendous shaking of our building. [p. 20]

North Tower:

So we just ran as a unit to the overpass again, and we took a look up, and it was like one -- it was like, holy shit. It was like -- because it was like -- I guess the building was kind of -- I don't remember specifically, but I remember it was, like, we got to get out of here. So I think that the building was really kind of starting to melt. We were -- like, the melt down was beginning. The collapse hadn't begun, but it was not a fire any more up there. It was like -- it was like that -- like smoke explosion on a tremendous scale going on up there.[p. 17]

Richard Boeri, 9110302

South Tower:

We had our backs to the tower and under that pedestrian bridge walking south, myself, Eddie Kennedy and the officer, when you heard the crackling. You looked up and you saw the one floor explode on itself and the top start to slide. [p. 4]

Gregg Brady, 9110184

North Tower:

We were standing underneath and Captain Stone was speaking again. We heard -- I heard 3 loud explosions. I look up and the north tower is coming down now, 1 World Trade Center.

...

At that time, when I heard the 3 loud explosions, I started running west on Vesey Street towards the water. [p. 7]

Timothy Burke, 9110488

South Tower:

Then the building popped, lower than the fire, which I learned was I guess, the aviation fuel fell into the pit, and whatever floor it fell on heated up really bad and that's why it popped at that floor. That's the rumor I heard. But it seemed like I was going oh, my god, there is a secondary device because the way the building popped I thought it was an explosion. [p. 8]

Edward Cachia, 9110251

South Tower:

As my officer and I were looking at the south tower, it just gave. It actually gave at a lower floor, not the floor where the plane hit, because we originally had thought there was like an internal detonation explosives because it went in succession, boom, boom, boom, boom, and then the tower came down. [p. 5]

Fernando Camacho, 9110318

South Tower:

As we came in through the revolving doors, the lights went out. A second or two later everything started to shake. You could hear explosions. We didn't know what it was. We thought it was just a small collapse. As I looked straight ahead of me, I saw total darkness. Everything was coming our way like a wave. [p. 4]

Frank Campagna, 9110224

North Tower:

That's when it went. I looked back. You see three explosions and then the whole thing coming down. I turned my head and everybody was scattering. [p. 8]

Craig Carlsen, 9110505

South Tower:

I guess about three minutes later you just heard explosions coming from building two, the south tower. It seemed like it took forever, but there were about ten explosions. At the time I didn't realize what it was. We realized later after talking and finding out that it was the floors collapsing to where the plane had hit.

We then realized the building started to come down. [p. 6]

North Tower:

The second one coming down, you knew the explosions. Now you're very familiar with it. [p. 10]

Jason Charles, 9110486

South Tower:

...we start walking over slowly to the curb, and then I heard an explosion from up, from up above, and froze and was like, oh shit, I'm dead because I thought debris was going to hit me in the head and that was it.

Then everybody stops and looks at the building and then they take off. [p. 14]

North Tower:

...we don't even get to the back of the building. We start walking back there and then I heard a ground level explosion and I'm like holy shit, and then you heard that twisting metal wreckage again. Then I said shit and everybody started running... [p. 29]

[After both towers have fallen he's in another building trying to evacuate it when he sees the television.]

Those guys had a TV set and that's when I found out we were under attack, because prior to that I thought Tower 2 blew up because the engine from the plane hit Tower 2 and exploded inside. It was like stupid, but that's what I thought. [p. 35]

Roy Chelsen, 9110475

North Tower: [He gets out of the NT and then this happens.]

All of a sudden we heard this huge explosion, and that's when the tower started coming down. We all started running. [pp. 8-9]

John Citarelli, 9110264

South Tower:

Right as he said that, I heard a loud roar, "boom, boom, boom, boom, boom, boom," and it was getting louder. I looked around, and we were looking at each other. What is that noise? I just looked out the window of the lobby. I could see stuff out of the window of the lobby hitting the street, and I just dove into the corner of the wall. [pp. 4-5]

North Tower:

I turned, I took maybe a couple more steps, and then I heard another explosion, it sounded like. I looked up, and the north tower was starting to come down. [p. 11]

Louis Cook, 9110103

North Tower:

I made it up onto the -- I guess you call it the concourse level, the mezzanine level, and onto the foot bridge when I started to hear -- I thought I heard an explosion of some sort, but I kind of dismissed it. I figured, ah, it's just something burning upstairs...and then I just remember feeling a rumble and hearing this rumbling sound that was really intense. It actually shook my bones...So I ran. [pp. 6-7]

Alan Cooke, 9110040

...what happened at that time, it seemed like an explosion was coming from there. I thought an explosion was coming from there. That's when everybody started running... [p. 5]

...

...I thought I was going to die. I really did. I thought what happened was that there was an explosion at the World Trade Center. Then I thought there was another one at the Seaport. I thought that was a secondary... [p. 6]

Dean Coutsouros, 9110049

North Tower:

I happened to be looking up at it, and from the fire floor down, it was just like a really loud crackling noise, it sounded like a million firecrackers, and just a wave, right from the fire floor down, just a wave that started to come down. [p. 3]

John Coyle, 9110406

South Tower:

I started running after him and looking over my shoulder.

The tower was--it looked to me--I thought it was exploding, actually. That's what I thought for hours afterwards, that it had exploded or the plane or there had been some device on the plane that had exploded, because the debris from the tower had shot out far over our heads. [pp. 7-8]

...

But nobody knew what had happened. I still thought it had exploded, something had exploded.

...

At that point I had no idea what had happened. It seemed that the thing had blown up. [p. 10]

North Tower:

Everybody I think at that point still thought these things were blown up. So I was fully expecting anything else to blow up. [p. 12]

[After being near WTC 7's collapse he's speaking to his family on the phone.]

While I was down at Battery Park I finally got through on my phone to my father and said, 'I'm alive. I just wanted to tell you, go to church, I'm alive. I just so narrowly escaped this thing.' He said, 'Where were you? You were there?' I said, 'Yeah, I was right there when it blew up.' He

said, 'You were there when the planes hit?' I said, 'No, I was there when it exploded, the building exploded.' He said, 'You mean when it fell down?' I said, 'No, when it exploded.'

I still didn't realized what had happened. I totally thought it had been blown up. That's just the perspective of looking up at it, it seemed to have exploded out. But that I guess was the force of the upper stories collapsing down. [pp. 15-16]

Frank Cruthers, 9110179

And while I was still in that immediate area, the south tower, 2 World Trade Center, there was what appeared to be at first an explosion. It appeared at the very top, simultaneously from all four sides, materials shot out horizontally. And then there seemed to be a momentary delay before you could see the beginning of the collapse. [p. 4]

James Curran, 9110412

North Tower:

We started filing out and following the line of the building. I got just to underneath the north walkway. A guy started screaming to run. When I got underneath the north bridge I looked back and you heard it, I heard like every floor went chu-chu-chu. Looked back and from the pressure everything was getting blown out of the floors before it actually collapsed. [pp. 10-11]

Paul Curran, 9110369

South Tower [Experienced while low in the NT.]:

With that, all a sudden the tower went completely -- a horrendous noise, a very, very tremendous explosion, and a very heavy wind came through the tower. The wind almost knocked you down. [p. 5]

Kevin Darnowski, 9110202

South Tower:

At that time I started walking back up towards Vesey Street. I heard three explosions, and then we heard like groaning and grinding, and tower two started to come down. [p. 8]

John Delendick, 9110230

South Tower:

We heard a rumbling noise, and it appeared that that first tower, the south tower, had exploded, the top of it. That's what I saw, what a lot of us saw. [p. 5]

...

I remember asking Ray Downey was it the jet fuel that blew up. He said at that point he thought there were bombs up there because it was too even. As we've since learned, it was the jet fuel that was dropping down that caused all this. But he said it was too even.

Q. Symmetrical?

A. So his original thought was that he thought it was a bomb up there as well. [pp. 5-6]

...

We didn't know the building came down. We just knew the top of the building exploded and didn't know what happened to the rest of the building. You just couldn't see anything. [p. 7]

Dominick DeRubbio, 9110064

South Tower:

After a while we were looking up at the tower, and all of a sudden someone said it's starting to come down.

Q. This would be the north tower coming down?

A. This would be the first one.

Q. Or the south tower?

A. This one here. It was weird how it started to come down. It looked like it was a timed explosion, but I guess it was just the floors starting to pancake one on top of the other. [p. 5]

Karin Deshore, 9110192

South Tower:

I had no clue what was going on. I never turned around because a sound came from somewhere that I never heard before. Some people compared it with an airplane. It was the worst sound of

rolling sound, not a thunder. I can't explain it, what it was. All I know is--and a force started to come hit me in my back. I can't explain it. You had to be there. All I know is I had to run because I thought there was an explosion.

I was unaware what was happening. I thought it was just a major explosion. I didn't know the building was collapsing...I just felt like the darkness the loneliness and being alone was the worst thing I ever experienced in my life and not being able to breathe. There was no air. Whatever this explosion was simply sucked all the oxygen out of the air. You couldn't breathe and the feeling of suffocation... [pp. 10-11]

North Tower:

Somewhere around the middle of the World Trade Center, there was this orange and red flash coming out. Initially it was just one flash. Then this flash just kept popping all the way around the building and that building had started to explode. The popping sound, and with each popping sound it was initially an orange and then red flash came out of the building and then it would just go all around the building on both sides as far as I could see. These popping sounds and the explosions were getting bigger, going both up and down and then all around the building.

I went inside and told everybody that the other building or there was an explosion occurring up there and I said I think we have another major explosion... [p. 15]

...

So here these explosions are getting bigger and louder and bigger and louder and I told everybody if this building totally explodes, still unaware that the other building had collapsed, I'm going in the water. [p. 16]

...

I'm still standing there trying to figure out what my next move should be, when the same sergeant says fucking shit, it's coming at us, and that's a quote.

Again I didn't see what was happening behind me, but knowing of all the explosions I thought here was another explosion coming and this sound again and this wave of this force again. [pp. 17-18]

George DeSimone, 9110129

South Tower:

The next thing I know, we heard a little bit of a rumbling, and then white powder came from the first collapsed building. I thought it was an explosion initially. We got hit with the powder. We tried to run. [p. 6]

North Tower:

After that, I still thought it was an explosion. I thought it was some kind of thermal explosion where I'm either going to get burnt -- and I had kind of ideas that it was going to be something like Hiroshima where all this heat was coming at me and we were going to get burnt -- or if the heat didn't burn me, I thought that all the parts coming out of this building, the windows, metal, all the things like that, that I might be severed in half. [p. 7]

...

I don't think we understood the magnitude of what was going on. I was fearful that there were bombs in the building. That was my first thought, being the military kind of guy that I am. [p. 10]

Brian Dixon, 9110166

South Tower:

I was watching the fire, watching the people jump and hearing a noise and looking up and seeing -- it actually looked -- the lowest floor of fire in the south tower actually looked like someone had planted explosives around it because the whole bottom I could see -- I could see two sides of it and the other side -- it just looked like that floor blew out.

I looked up and you could actually see everything blew out on the one floor. I thought, geez, this looks like an explosion up there, it blew out. Then I guess in some sense of time we looked at it and realized, no, actually it just collapsed. That's what blew out the windows, not that there was an explosion there but that windows blew out. [p. 15]

...

As I just got in under the entrance there, I got just a little ways back and it was just like -- you hear the noise, a boom, and then a blast of air. [p. 16]

Michael Donovan, 9110205

South Tower:

I got up, I got into the parking garages, was knocked down by the percussion. I thought there had been an explosion or a bomb that they had blown up there. The Vista International Hotel was my first impression, that they had blown it up. [pp. 13-14]

...

Q. So you knew the south tower came down? You knew it collapsed?

A. No, you couldn't see it. I thought the Millennium Hotel had been blown up. [p. 17]

Robert Dorritie, 9110299

South Tower:

I guess we got about three-quarters of the way across when we were deciding which way to go into the south tower.

That's when I looked up, and the tower started coming down, which at the time I said I thought it was a secondary device. I had warned the guys about secondary devices on the way down... [p. 4]

James Drury, 9110098

South Tower:

We were in the process of getting some rigs moved when I turned, as I heard a tremendous roar, explosion, and saw that the first of the two towers was starting to come down. [p. 6]

North Tower:

...we started to hear the second roar. That was the north tower now coming down. I should say that people in the street and myself included thought that the roar was so loud that the explosive - bombs were going off inside the building. Obviously we were later proved wrong. [p. 7]

...

...seeing that first tower come down was unbelievable. The sound it made. As I said I thought the terrorists planted explosives somewhere in the building. That's how loud it was, crackling explosive, a wall. [p. 12]

James Duffy, 9110444

North Tower

Q. When either tower came down, did you have any advanced warning?

A. Oh, no. I didn't know what it was when we were inside. I didn't know the building had collapsed, actually. I thought it was a bomb. I thought a bomb had gone off. That's why I really didn't know until after.

Q. Afterwards?

A. Yeah, that that's when it came down. I wasn't expecting that. I thought it was a bomb or something that went off. [pp. 9-10]

Kevin Duggan, 9110345

South Tower:

...we were standing there, and then we just heard this real loud roar. We looked up and we could see the south tower.

Looked like the middle of it was just exploding out, and at that point, one of the officers just said, "Run"... [p. 7]

Christopher Fenyo, 9110295

South Tower:

About a couple minutes after George came back to me is when the south tower from our perspective exploded from about midway up the building. We all turned and ran... [p. 5]

...

At that point a debate began to rage because the perception was that the building looked like it had been taken out with charges. We had really no concept of the damage on the east side of 2 World Trade Center at that point, and at that point many people had felt that possibly explosives had taken out 2 World Trade, and officers were gathering companies together and the officers were debating whether or not to go immediately back in or to see what was going to happen with 1 World Trade at that point. The debate ended pretty quickly because 1 World Trade came down. [pp. 6-7]

North Tower

There was an explosion at the top of the Trade Center and a piece of Trade Center flew across the West Side Highway and hit the Financial Center... [p. 3]

Brian Fitzpatrick, 9110256

North Tower:

...that's when we heard a tremendous noise and it was coming from the south tower, and we looked up and it was coming down...

I remember making it into the tunnel and it was this incredible amount of wind, debris, heat. I remember falling down, getting back up, and the guys were just falling all over each other. [pp. 3-4]

Then we exited out by the marina, the North Cove Yacht Harbor, where we all basically just took a knee and we waited a couple of minutes. Everybody was in shock. We didn't know what happened. We just thought it was debris or an explosion or a secondary explosion or another bomb inside the building or another plane. [p. 5]

Thomas Fitzpatrick, 9110001

South Tower:

All we saw was a puff of smoke coming from about 2 thirds of the way up. Some people thought it was an explosion. I don't think I remember that. I remember seeing, it looked like sparkling around one specific layer of the building. I assume now that that was either windows starting to collapse like tinsel or something. Then the building started to come down. My initial reaction was that this was exactly the way it looks when they show you those implosions on TV. I would have to say for three or four seconds anyway, maybe longer. I was just watching. [pp. 13-14]

Gary Gates, 9110065

South Tower:

I looked up, and the building exploded, the building that we were very close to, which was one tower. The whole top came off like a volcano. [p. 6]

...

So the explosion, what I realized later, had to be the start of the collapse. It was the way the building appeared to blowout from both sides. I'm looking at the face of it, and all we see is the two sides of the building just blowing out and coming apart like this, as I said, like the top of a volcano. [pp. 6-7]

Jerry Gombo, 9110100

South Tower: collapse:

...it felt sort of like an earthquake. The sky darkened and you heard this thunderous roar. It was like a volcano, if you will, not that I ever experienced a volcano, but I guess that's the way I could describe it, and this cloud just coming down. The ground was shaking and this roar... [p. 12]

North Tower:

No sooner did we get, I would say, several yards down Vesey Street heading east to west when the second tower came down, and once again this huge mushroom cloud... [pp. 18-19]

Gerard Gorman, 9110420

[After both towers have collapsed.]

...at that point I did not know the first building collapsed still. Didn't know. We thought it was a missile attack or something like that. We thought we were under attack. They didn't have any idea that this building could collapse. [p. 21]

...

[A couple of minutes before the NT collapse he's trying to figure out what the earthquake was that he just felt.]

So on the overhang I remember seeing a frigging Bomb Squad cop and I asked him, what the hell blew up? [p. 23]

Kevin Gorman, 9110434

North Tower:

...and as I was looking at him I heard the explosion, looked up, and saw like three floors explode, saw the antenna coming down, and turned around and ran north. [p. 6]

Steve Grabher, 9110241

South Tower:

I looked over my shoulder and you could see the whole top of the south tower leaning towards us. It looked like it was coming over. You could see the windows pop out just like in the picture, looked like a movie. I saw one floor of windows pop out, like poof, poof. I saw one and a half floors pop out. It looked almost like an explosion. [pp. 10-11]

Stephen Gregory, 9110008

South Tower:

At that point in time I called Manhattan. I was answered. I asked them if they were aware of an explosion at the World Trade Center. I told them basically what I thought had happened... [pp. 8-9]

...

...I thought that when I looked in the direction of the Trade Center before it came down, before No. 2 came down, that I saw low-level flashes.

In my conversation with Lieutenant Evangelista, never mentioning this to him, he questioned me and asked me if I saw low-level flashes in front of the building, and I agreed with him because I thought -- at that time I didn't know what it was. I mean, it could have been as a result of the building collapsing, things exploding, but I saw a flash flash flash and then it looked like the building came down.

Q. Was that on the lower level of the building or up where the fire was?

A. No, the lower level of the building. You know like when they demolish a building, how when they blow up a building, when it falls down? That's what I thought I saw. And I didn't broach the topic to him, but he asked me. He said I don't know if I'm crazy, but I just wanted to ask you because you were standing right next to me. He said did you see anything by the building? And I said what do you mean by see anything? He said did you see any flashes? I said, yes, well, I thought it was just me. He said no, I saw them, too.

I don't know if that means anything. I mean, I equate it to the building coming down and pushing things down, it could have been electrical explosions, it could have been whatever. But it's just strange that two people sort of say the same thing and neither one of us talked to each other about it. I mean, I don't know this guy from a hole in the wall. I was just standing next to him...

Q. On the television pictures it appeared as well, before the first collapse, that there was an explosion up on the upper floors.

A. I know about the explosion on the upper floors. This was like eye level. I didn't have to go like this. Because I was looking this way. I'm not going to say it was on the first floor or the second floor, but somewhere in that area I saw to me what appeared to be flashes. [pp. 14-16]

Gregg Hansson, 9110017

North Tower:

Then a large explosion took place. In my estimation that was the tower coming down, but at that time I did not know what that was. I thought some type of bomb had gone off. [p. 15]

Mala Harrilal, 9110186

North Tower: [He's out in a boat by now, quite far from the scene.]

Q. But you weren't involved with that part, because you were already out of the area, you were by the boat loading people?

A. Right, because we heard the explosion. [p. 7]

Russell Harris, 9110015

South Tower:

I was on the side of the church. I looked and all this debris just started exploding everywhere, and I turned around to run... [p. 7]

Barrett Hirsch, 9110336

North Tower:

Then I noticed, like, the top of the tower seemed to shoot up a little bit and start to fall down a little bit, and that's when Bill Simon and I, who was my partner, just bolted... [p. 4]

Timothy Hoppey, 9110229

South Tower:

...that's when we heard the rumble. I looked up, and it was just a black cloud directly overhead. At that point I was thinking it was a secondary explosion. It looked to me like it was much lower than where the planes had gone in. [p. 5]

...

I thought the top half of the building was falling off, and I was thinking of it falling outward, not really imploding upon itself like it did. [p. 6]

Paul Hyland, 9110374

North Tower:

I just saw the top half of the north tower sink and sort of just sat down on itself, sat down, and then just started shattering and just blowing out like a Christmas tree. [pp. 11-12]

James Ippolito, 9110342

South Tower [As experienced from within the NT.]

...we were taking a break on 30, and that's when we heard a rumble, outside explosion, and I think that was the other building coming down... [p. 5]

North Tower:

Started to walk towards it, and that's when the building came down. I heard an explosion and turned around and the building was coming down. [p. 8]

Timothy Julian, 9110386

South Tower:

...that's when I heard the building collapse.

First I thought it was an explosion. I thought maybe there was bomb on the plane, but delayed type of thing, you know, secondary device.

Q. I was convinced for a week it was secondary devices.

A. You know, and I just heard like an explosion and a then a cracking type of noise, and then it sounded like a freight train, rumbling and picking up speed, and I remember I looked up, and I saw it coming... [p. 10]

Edward Kennedy, 9110502

South Tower:

We took two steps, there was a tremendous boom, explosion, we both turned around, and the top of the building was coming down at us. With this I just turned to Richie and said run. [p. 7]

...

When the building exploded, they ran down Liberty towards the water... [p. 9]

Stephen Klee, 9110300

South Tower:

A. No, I was just trying to find out -- no, there was no -- it was still dusty out there, and you really couldn't see. I didn't even realize that two came down. I thought another bomb or a plane hit the building. That's what I thought it was. [p. 7]

George Kozlowski, 9110308

North Tower:

As we were walking, we heard--we thought it was another plane coming. It was like a big shhhhh. A thousand times louder than that. It sounded like a missile coming and we just started booking. We took off like bats out of hell.

We made it around the corner and that's when the shit hit the fan right then and there. We heard that loud and then ba boom. I just--it was like an earthquake or whatever. A giant. giant explosion. [p. 8]

...

Then this big gust came and I just went flying, maybe 30, 40 feet. Tumbling.

I got up, got on my hands and knees because all of the white shit was all over me. I just kept crawling. My ears were like deaf, you know, when you hear a giant firecracker or something. [p. 9]

Kirk Long, 9110509

South Tower: [The collapse is experienced from inside the NT.]

When the building shook, I was right next to an elevator shaft with Andy, crawling down the hallway. I was waiting for a flame to come up from the basement because I believed something in the basement blew up. Nothing like that happened, so I was waiting for a flame to come down from a plane. Nothing like that happened. Still at that time I never knew that the south tower had gone down. [pp. 4-5]

David Loper, 9110349

South Tower:

Then all of a sudden there was like a loud -- almost like a rushing sound, a roar, and we looked up and we could see it looked like an implosion and the building kind of went in and out and kind of like shook...We were looking up and then this thing started coming down... [p. 10]

John Lynn, 9110389

South Tower:

...our attention was drawn to the south tower. There was some kind of explosion, you might say, up in the area where the fire was. Actually, in hindsight, that was the start of the collapse. [p. 3]

Michael Macko, 9110506

South Tower:

We were making our way down West Street. We got just about south of the north overpass, about 50 feet past that, when the first collapse occurred. I looked up. I was awed by--I thought it exploded at the top. Everybody I guess at that point started running... [p. 4]

Paul Mallery, 9110312

South Tower

I said it sounds just like this, this is exactly what it sounds like, here's another one, thinking it was a third plane. Meanwhile the sound to me was four distinct events. They all sounded the same. The two plane crashes and the two collapses, except the collapses lasted longer. [p. 8]

..

I don't know if this is nuclear attack. I don't know what this is any more. [p. 9]

John Malley, 9110319

South Tower:

As we walked through those revolving doors, that's when we felt the rumble. I felt the rumbling, and then I felt the force coming at me. I was like, what the hell is that? In my mind it was a bomb going off.

The pressure got so great, I stepped back behind the columns separating the revolving doors. Then the force just blew past me. It blew past me it seemed for a long time. In my mind I was saying what the hell is this and when is it going to stop? Then it finally stopped, that pressure which I thought was a concussion of an explosion. It turns out it was the down pressure wind of the floors collapsing on top of each other. [p. 5]

North Tower:

At that point I didn't know the building came down. I thought I was still in the explosion. I didn't know the whole building had come down. [p. 9]

Julio Marrero, 9110162

South Tower:

...I heard a loud bang. We looked up, and we just saw the building starting to collapse. I looked over and started to scream at my partner, which he was inside the vehicle...

...

I was screaming from the top of my lungs, and I must have been about ten feet away from her and she couldn't even hear me, because the building was so loud, the explosion, that she couldn't even hear me. [pp. 4-5]

North Tower

That's when I just broke down and cried at Bellevue Hospital, because it was just so overwhelming. I just knew that what happened was horrific. It was a bombing. [pp. 15-16]

Patrick Martin, 9110510

South Tower:

...it was right then that we heard the noise.

My lieutenant said he looked down at the first floor, and he auto [?] see the first floor of the south tower like exploding out. I looked up. I looked up, and the sky was filled with that debris cloud. You could see the debris coming down, pretty much toward us. [p. 5]

Edward Martinez, 9110494

South Tower:

...because of the fog that was there, you couldn't see above. Your distance was limited. Once I heard that, I heard like a big explosion, a tremendous explosion, let me put it that way and rumbling sound.

At that time I started seeing things coming down. [pp. 4-5]

Orlando Martinez, 9110183

South Tower:

Q. This is the first building collapsing?

A. Right. There was an explosion and after we started running... [p. 9]

Maureen McArdle-Schulman, 9110110

South Tower:

And the building had red fire, a ring of fire. They started pumping and bouncing and I'm standing there staring. Finally somebody yelled "run." [p. 7]

...

I just called him [her husband] and told him I was going in the tower. The tower just imploded. [p. 11]

North Tower:

We're standing there and I look up. The second tower starts with the ring of fire. Some puffing and bouncing. [p. 12]

Linda McCarthy, 9110213

South Tower:

A. So when that one went down. I thought the plane was exploding, or another plane hit. I had no idea it was coming down. But I couldn't see it gone, because I couldn't see it really in the first place with all the smoke...So I didn't know what it was. I heard like an earthquake. I said run for your lives, run. [pp. 6-7]

John McGimpsey, 9110477

South Tower: [From inside Marriott Hotel.]

We didn't know actually what was going on. We weren't sure if those noises were--sounded like another plane, bomb, something like that... [p. 5]

James McKinley, 9110072

South Tower:

Then all of a sudden I heard this huge explosion, I didn't know what it was cause nobody was telling me anything...I was this close to it, and I didn't know what was going on. After that I heard this huge explosion, I thought it was a boiler exploding or something. Next thing you know this huge cloud of smoke is coming at us, so we're running. [p. 4]

Michael Mejias, 9110149

South Tower: [Apparently he is confusing it with the NT.]

The building started collapsing, the north tower started collapsing. It tipped down first and then the thing fell within itself. It was an amazing sight to see. It was really unbelievable. I thought I was watching a movie with special effects...

But it didn't really -- we were safe because we were surrounded by other buildings. If the tower would have fell towards West Street instead of imploding on itself, we would have had a problem, but, you know, it just came within itself, just tipped. [p. 8]

Joseph Meola, 9110287

South Tower:

As we are looking up at the building, what I saw was, it looked like the building was blowing out on all four sides. We actually heard the pops. Didn't realize it was the falling -- you know, you heard the pops of the building. You thought it was just blowing out. [p. 5]

Mary Merced, 9110144

South Tower:

So I'm running, and I'm worried about the chief, that he's there. Nobody expected those buildings to implode. They were thinking, it's going to topple. [p. 12]

North Tower:

Then everybody is going to run, because we didn't see where the building toppled because we didn't know it imploded because you couldn't see anything. [p. 16]

Craig Monahan, 9110016

South Tower:

When it sounded like the explosion stopped, the steel hitting, when it all seemed to stop, this just like a fire storm of wind and material, a sandstorm kind of, just came and wailed by, really flew past us quick. [p. 8]

David Moriarty, 9110228

North Tower:

I looked up, and it appeared as if the north tower -- it almost appeared to be liquefied. The very top of it began to cascade out and down, almost in a rolling motion. [p. 7]

Murray Murad, 9110009

South Tower:

Then it came down. From the implosion, we all got thrown and all that stuff came in the house... [p. 9]

...

I didn't want to take one because they had a couple of firetrucks that were hanging out right in front of him. I don't know what firetrucks they were, but they looked kind of beaten up from the explosion. [p. 10]

North Tower:

A. All the debris from the collapse of--

Q. So it was outside?

A. It was inside. From the implosion, everything just came inside. [p. 13]

Keith Murphy, 9110323

South Tower: [As experienced from the ground floor of the NT.]

I had heard right before the lights went out, I had heard a distant boom boom boom, sounded like three explosions. I don't know what it was. At the time, I would have said they sounded like bombs, but it was boom boom boom and then the lights all go out. I hear someone say oh, shit, that was just for the lights out. I would say about 3, 4 seconds, all of a sudden this tremendous roar. It sounded like being in a tunnel with the train coming at you. It sounded like nothing I had ever heard in my life, but it didn't sound good. All of a sudden I could feel the floor started to shake and sway. We were being thrown like literally off our feet, side to side, getting banged around and then a tremendous wind started to happen. It probably lasted maybe 15 seconds, 10 to 15 seconds. It seemed like a hurricane force wind. It would blow you off your feet... [pp. 19-20]

John Murray, 9110407

South Tower:

...we were standing there watching the north tower and not even paying attention to the south tower.

Then you look up and it's like holy shit, the building didn't come down, it shot straight out over our heads, like straight across West Street. Holy shit, there is no fucking way we are going to out run this thing. [p. 6]

Kevin Murray, 9110020

North Tower:

When the tower started -- there was a big explosion that I heard and someone screamed that it was coming down and I looked away and I saw all the windows domino -- you know, dominoeing up and then come down. We were right in front of 6, so we started running... [p. 15]

Robert Norris, 9110071

South Tower: [He hears what he thinks is a third plane, but it is actually the collapse of the ST.]

...I heard what was a third plane coming in. I heard the propulsion of an engine and then an explosion.

We looked up and saw these huge chunks. There's one particular piece of this building that fell in its entirety that I'll never forget... [p. 11]

North Tower: [He describes the NT collapse in a similar manner.]

I remember being over there, and did I hear yet another--what I thought was a propulsion of a plane, and then an explosion, and then we all dove to the floor. [pp. 17-18]

Michael Ober, 9110093

South Tower:

Then we heard a rumble, some twisting metal, we looked up in the air, and to be totally honest, at first, I don't know exactly...but it looked to me just like an explosion. It didn't look like the building was coming down, it looked like just one floor had blown completely outside of it...

...

After hearing this and looking up and seeing the building, what I thought was an explosion, everyone was running... [pp. 4-5]

Janice Olszewski, 9110193

South Tower:

I didn't think it was safe. I didn't know what was going on. I thought more could be happening down there. I didn't know if it was an explosion. I didn't know it was collapse at that point. I thought it was an explosion or secondary device, a bomb, the jet-plane exploding, whatever. [p. 7]

Patricia Ondrovic, 9110048

South Tower:

My partner and I grabbed our stretcher, went to put it in the back of our vehicle, and at that time, I think it was the lobby of the building behind us blew out. Everybody started running, I didn't see him again that day. He got thrown one way, I got thrown the other way.

...I was still on Vesey, cause the building that blew up on me was on Vesey.

...There was no where safe to go...I thought that they blew up our triage sector...The paramedic from Cabrini, that's where he was. I was just talking to him 20 minutes before everything blew up. [pp. 4-7]

...

At that point I got really upset. I said, do you realize they just blew up our triage sector? Everybody back there is dead, everybody back there is gone. [p. 9]

Joseph Patriciello, 9110378

South Tower:

...I happened to be looking up and saw the explosion or the building fail with the ensuing fireball and cloud. It didn't appear to me at that moment the building was coming down. But when the noise level began to pick up, it was obvious that something wrong was going on. We all proceeded to run... [p. 4]

Joseph Petrassi, 9110449

North Tower:

We came out of the building and we were looking up and the tower seemed to blow out...You could feel the stuff hitting you on the back as you were running. [p. 3]

Thomas Piambino, 9110493

South Tower:

The south tower had fallen, but at that time I didn't know what it was. All I heard was a tremendous explosion. The tower I was in shook really bad. [p. 5]

North Tower:

...and then the north tower started to fall, and my perception was that when I looked back at the tower as it was starting to come down -- I was booking -- was that there was -- I thought it exploded, and I didn't realize it had collapsed. It looked to me like an explosion...I wound up taking refuge behind an ESU truck, I believe it was, a Police Department ESU truck, I think, and I just rode it out until first there was the explosion or the concussion, and then there was very, very strong wind, and then there was the black... [pp. 9-10]

John Picarello, 9110240

South Tower:

In about a second or two, you just heard like a ba-ba-ba-boom, and everything just came down and everything was pitch-black. [p. 6]

Richard Picciotto, 9110211

South Tower: [As heard from inside the NT.]

...drop your tools, drop your masks, drop everything, get out, get out, get out. My thinking was either--I thought a bomb hit the other building and brought it down, and if there's a bomb in that one, there's a bomb in this one. [p. 6]

Kevin Quinn, 9110339

South Tower:

Looking up at the towers and it looked like it just basically imploded. [p. 2]

Joseph Rae, 9110294

South Tower:

We started walking north to just about the second footbridge, which would be 6 World Trade, and all of a sudden we heard the explosion and the building started to come down and I ran... [p. 3]

Gerard Reilly, 9110435

South Tower:

So we probably were in the building maybe a minute in the lobby of the tower, whichever one we were in, and that's when it came down. But I thought it was an explosion in the hotel, because all the debris came down, it was pitch-black, the whole building shook. [p. 4]

...

I told him I thought it was a bomb in the hotel, because nobody said the building collapsed. [p. 5]

William Reynolds, 9110288

South Tower:

After a while, and I don't know how long it was, I was distracted by a large explosion from the south tower and it seemed like fire was shooting out a couple of hundred feet in each direction, then all of a sudden the top of the tower started coming down in a pancake... [p. 3]

...

Q. Bill, just one question. The fire that you saw, where was the fire? Like up at the upper levels where it started collapsing?

A. It appeared somewhere below that. Maybe twenty floors below the impact area of the plane.
[p. 4]

...

Q. You're talking about the north tower now; right?

A. Before the north tower fell. He said, 'No.' I said, 'Why not? They blew up the other one.' I thought they blew it up with a bomb. I said, 'If they blew up the one, you know they're gonna blow up the other one.' [p. 8]

Patrick Richiusa, 9110305

North Tower:

...then it was dead silent. There was no noise after 1 Trade Center fell. It was like something out of a movie. It was really loud and then it was -- maybe it was just my hearing from the blast. [p. 10]

Juan Rios, 9119937

South Tower:

...I was hooking up the regulator to the O-2, when I hear people screaming and a loud explosion...So I just started to run... [p. 3]

Angel Rivera, 9110489

South Tower: [The collapse is experienced from inside the Marriott hotel.]

...when we hit the 19th floor, something horrendous happened. It was like a bomb went off. We thought we were dead. The whole building shook. The brick coming out of -- the door to the hallway into the hotel blew off like somebody had thrown it all over the place. It shook all over the place. We were thrown on the floor...The building was still shaking and we're still hearing explosions going on everywhere, so we decided let's get out of here. [pp. 4-5]

North Tower: [Again from inside the Marriott.]

Mike Mullan walked one flight up, and then the most horrendous thing happened. That's when hell came down. It was like a huge, enormous explosion. I still can hear it.

Everything shook. Everything went black. The wind rushed, very slowly [sound], all the dust, all the -- and everything went dark. We were rolling all over the floor, banging against the walls... [p. 7]

...

When the second tower came down, we had no idea what was going on. We thought another plane, another bomb, another as a second device. [p. 9]

Daniel Rivera, 9110035

South Tower: [This witness is very close to ST when it collapses.]

Then that's when I kept on walking close to the south tower and that's when that building collapsed.

Q. How did you know that it was coming down?

A. That noise. It was a noise.

Q. What did you hear? What did you see?

A. It was a frigging noise. At first I thought it was--do you ever see professional demolition where they set the charges on certain floors and then you hear 'pop, pop, pop, pop, pop'? That's exactly what--because I thought it was that. When I heard that frigging noise, that's when I saw the building coming down. [p. 9]

Terence Rivera, 9110343

South Tower:

As I run towards it, I know that I'm not going to escape the -- escape it, so I dive under -- I don't know even know which rig it was. I dive under a rig. At the same time it felt like an explosion. I got bounced around underneath the rig. [p. 7]

Kenneth Rogers, 9110290

South Tower:

...we were standing there with about five companies and we were just waiting for our assignment and then there was an explosion in the south tower, which according to this map, this exposure just blew out in flames. A lot of guys left at that point. I kept watching. Floor after floor after floor. One floor under another after another and when it hit about the fifth floor, I figured it was a bomb, because it looked like a synchronized deliberate kind of thing. [pp. 3-4]

John Rothmund, 9110112

South Tower:

At that time we were looking at the top of the towers and all the rubble and people coming off, and all of a sudden you heard -- it sounded like another airplane, or a missile. It was like a slow shake. The whole ground just vibrated and shook. [pp. 5-6]

North Tower:

Again, we didn't know what was going on. We thought it was a bomb, you know, like planes were dropping from the sky or missiles were hitting. We didn't know what the hell was going on. [p. 14]

William Ryan, 9110117

[Seems to be after both collapses.]

Q. What did you think you were responding to at that point?

A. Well, we knew we had fire. We knew we had partial collapse.

Q. From an explosion or --

A. Yes. Well, we heard a loud boom when we were getting ready to dock the ferry. Probably the jet fuel igniting, I assume. [p. 3]

Stanley Rybak, 9110263

South Tower:

...then the -- then everything just came right through. The dust and the explosion knocked the windows out, and so I was momentarily on the ground. [p. 5]

Anthony Salerno, 9110309

North Tower:

Putting out all those fires, in that interim, the second building had come down. I remember hearing a lot of explosions, the street turning completely gray, gray clouds of smoke all over the place. Everybody had stopped what they were doing and ran back up the block. [p. 4]

Patrick Scaringello, 9110030

South Tower:

I started to treat patients on my own when I heard the explosion from up above. I looked up, I saw smoke and flame and then I saw the top tower tilt, start to twist and lean. [p. 4]

North Tower:

I was assisting in pulling more people out from debris, when I heard the second tower explode. [p. 5]

Howie Scott, 9110365

South Tower:

We just made our turn to go in towards the lobby of tower two. For whatever reason, I just happened to look up and saw the whole thing coming down, pancaking down, and the explosion, blowing out about halfway up. [p. 6]

Edward Sheehey, 9110226

South Tower:

We were probably just at West Street, just at the street. Then the south tower -- we heard an explosion, looked up, and the building started to collapse. [p. 3]

William Simon, 9110115

North Tower:

Then we hear a rumble, and we see a blast of smoke and a slight ball of flame coming out from the silhouette of the building, and we watched the antenna collapse into the building. [p. 9]

Richard Skillington, 9110279

North Tower:

I looked up. I saw a helicopter, and I was trying to figure out what he was doing. Then the second tower exploded and started coming down. [p. 4]

Richard Smiouskas, 9110210

South Tower:

All of a sudden there was this groaning sound like a roar, grrrr. The ground started to shake....It looked like an earthquake. The ground was shaking. I fell to the floor. My camera bag opened up. The cameras went skidding across the floor. The windows started exploding in. [pp. 8-9]

...

...I didn't know exactly what was going on outside. I'm thinking maybe the building snapped in half. I'm thinking maybe a bomb blew up. I'm thinking it could have been a nuclear. [p. 9]

Thomas Spina, 9110445

South Tower:

I don't know what time later a loud rumble -- it sounded like an explosion. We thought it was a bomb... and number two tower comes down... [p. 9]

Mark Steffens, 9110003

South Tower:

We got to maybe one block north of where the Battery Tunnel exits onto West Street there, and then, boom, a massive explosion. Right in front of us we saw what looked like a fireball and smoke. It was rolling this way. [p. 5]

North Tower:

Then there was another it sounded like an explosion and heavy white powder, papers, flying everywhere. [pp. 6-7]

John Sudnik, 9110198

South Tower:

The best I can remember, we were just operating there, trying to help out and do the best we could. Then we heard a loud explosion or what sounded like a loud explosion and looked up and I saw tower two start coming down.

Frank Sweeney, 9110113

South Tower:

I bent over to pick up the hose, and I hear what sounded like firecrackers and a low rumble. I look up, and the south tower -- I could see the top part of the siding overlapping the bottom side of the siding...I ran... [p. 9]

Jay Swithers, 9110172

South Tower:

I took a quick glance at the building and while I didn't see it falling, I saw a large section of it blasting out, which led me to believe it was just an explosion. I thought it was a secondary device, but I knew that we had to go. [p. 5]

...

So I assumed that the vehicle had not been in the - what I thought was an explosion at the time, but was the first collapse. [p. 9]

David Timothy, 9110156

North Tower:

The next thing I knew, you started hearing more explosions. I guess this is when the second tower started coming down. [p. 12]

Stanley Trojanowski, 9110292

South Tower:

After the collapse of number Two World Trade Center, which I actually thought was a bomb that went off because the north tower was blocking my view, debris and everything started falling, people were running... [p. 3]

...

I made my way underneath the scaffolding again and just tried to outlast the collapse, which I thought was just another bomb going off. [p. 4]

Albert Turi, 9110142

South Tower:

The next thing I heard was Pete say what the fuck is this? And as my eyes traveled up the building, and I was looking at the south tower, somewhere about halfway up, my initial reaction was there was a secondary explosion, and the entire floor area, a ring right around the building blew out. I later realized that the building had started to collapse already and this was the air being compressed and that is the floor that let go. [p. 14]

Thomas Turilli, 9110501

South Tower: [This appears to be at, or just before, the collapse of the ST. They are in the NT and have just sent some men up in the elevator.]

The door closed, they went up, and it just seemed a couple seconds and all of a sudden you just heard like it almost actually that day sounded like bombs going off, like boom, boom, boom, like seven or eight, and then just a huge wind... [p. 4]

[They get down the stairs.]

At that point we were kind of standing on the street and I looked to my left and actually I noticed the tower was down. I didn't even know what it was when we were in there. It just seemed like a huge explosion. [p. 6]

Thomas Vallebuona, 9110418

South Tower:

...I heard 'boom', an exploding sound, a real loud bang. I looked up, and I could see the Trade Center starting to come down, the south tower, which I guess I was about a block away from. [p. 5]

North Tower:

And 'ba-boom' again, the same sound, the same noise, the same shuddering, shrilling noise of the metal falling as it cascades down. [p. 9]

Stephen Viola, 9110439

South Tower: [Collapse experienced from inside NT.]

Our guy went in with 13 truck, and he was coming down with the guy from 13 truck to bring the elevator to us, and when he was either going up or coming down the elevator, that's when the south tower collapsed, and it sounded like a bunch of explosions.

You heard like loud booms, but I guess it was all just stuff coming down... [p. 3]

William Wall, 9110285

North Tower:

At that time we heard an explosion. We looked up and the building was coming down right on top of us... [p. 9]

James Walsh, 9110459

North Tower:

The building didn't fall the way you would think tall buildings would fall. Pretty much it looked like it imploded on itself. [p. 10]

William Walsh, 9110442

North Tower:

I just remembered seeing two floors of heavy fire from the north side of World Trade Center one and the West side of World Trade Center one. All of a sudden things collapsed one Floor, and then within a second or so it just imploded. [p. 28]

Charles Wells, 9110163

South Tower:

We got to the point of being in between the Vista Hotel and the World Trade Center, at which point we heard a -- we felt a loud -- a very strong vibration, shaking, and a loud noise like a subway train coming through a station at speed, like a jet engine at full throttle. It was a roaring sound... [p. 6]

[After digging himself out of the collapse rubble.]

Everybody's heads were all popping up now. Everybody is digging out, so I ran into a couple of firefighters and I said, "Well, you know, what the hell happened?" Some kind of an explosion, he goes, and that's what I thought it was... [p. 8]

Daniel Williams, 9110289

South Tower:

I turned my face back towards the buildings as -- looking up at the south tower. It seemed like the one floor exploded, but in retrospect I'm thinking that was the compressive force of the building coming down that blew it out. I remember yelling, "Run." [p. 4]

**APPENDIX C: NON-EXPLOSION CASES BY CATEGORY:
TEXT AND CONTEXT: 10 CASES**

1. DENIAL OF EXPLOSION: 2 CASES

James Murphy, 9110323

South Tower: [This is the sound as heard from around the ground floor of the NT.]

I was looking down towards West Street, because that's where it seemed that it was coming from. You just heard -- I thought it was a third plane that hit, because when we were going in there was a couple of cops. When we made the right onto Liberty, they said, "Be careful, guys, there's a third plane heading in." So that's what I thought it was.

It just seemed like a long time that it was -- it didn't seem like an explosion. It was like boom, boom, and then just got louder and louder. It got louder and louder, and then all of a sudden I was looking out onto West Street and the whole area turned from gray to black in a hurry.

Glen Rohan, 9110404

North Tower:

We got approximately to Vesey, a little further past Vesey, I would say about 200 feet from the tower, when we heard a noise. I wouldn't even call it an explosion, but it was enough to make you look up. When we looked up, you could see things coming off the sides of the building of what was then number One World Trade Center. We looked at it for probably about five seconds before I realized that this building is coming down.

2. PANCAKING (TERM): 7 CASES

Craig Dunne, 9110490

North Tower:

I believe we were there maybe two minutes, two and a half minutes. We heard the rumble, looked up, and the antenna started leaning and the whole building started pancaking towards us, coming down.

Dennis Fischer, 9110402

North Tower:

...we heard the rumbling. We looked up, that I remember as plain as day. I looked up and I saw from the top, I actually watched it with my own eyes, I saw the top start to pancake down. I remember looking at the proby I was with. We looked at each other in amazement. The time seemed to like stand still for a second. We looked at each other. We looked back up. We looked back at each other. It seemed like a bunch of time went by. It was probably like a fraction of a second. Everybody started just running the other way.

Sammuel Harris, 9110108

South Tower:

As I related back to Chief Gombo – or I was getting ready to walk out and tell Chief Gombo what I was told, that's when tower one started to pancake and collapse. The only thing that I remember was the guy in front of me who was standing there in awe of just the earthquake feel, for myself as well.

Scott Holowach, 9110114

South Tower:

Shortly after that, sure enough, I heard – I don't know even -- I guess a rumbling sound. I looked up and I see the whole 70th floor basically like buckle out and start crumbling down the outside of the building. At the time I grabbed two other guys and said let's get the hell out of here. We dove into the building and after the rumbling stopped --

Q. Would have been south tower collapsing?

A. The south tower.

Q. You could see it from your position?

A. Yes. I visually watched the 70 floor. It looked like almost it was buckling outwards and then it just went down the outside of the building, just like scaled the outside of the building and it just started pancaking...

Robert Salvador, 9110474

North Tower:

...and then the north tower started coming down. I heard the same -- same pancaking, like a machine gun coming and glass flying, so I closed -- shut the door, got out of the rig, and ran -- started running across the street.

Tiernach Cassidy, 9110413

North Tower:

We start walking down Cortlandt Street from Broadway, going west, and we're carrying the stokes basket, myself and the team I was with, the other four guys. We started hearing the pancaking of the north tower now.

I looked at the officer I was with. We both looked at each other like what's that? Not thinking the second one would be coming down.

Q. What did it sound like?

A. It sounded like a plane just getting ready to land, just getting closer, coming in; a bowling ball getting closer when it's ready to hit that sweet spot, you know. But it didn't take us long to realize what it was. We didn't look up. We just ran ...

Rosario Terranova, 9110168

South Tower:

While we were discussing this, I remember hearing Chief Ganci say, "Oh, shit," you know, so we all looked up, and you could hear this rumble coming. We looked up at the south tower, which is the No. 2 tower, and all of a sudden we began to see like a pancake. I mean, it's as simple as that. If you could imagine you had two cards in your hand, and you just clapped your hands, and they just closed on each other. That's what it looked like, like a toy, and we began to see the pancake, boom, boom, boom, boom, boom, boom, boom, boom, one floor after another, as quick as you can imagine it.

3. PANCAKING (DESCRIPTION): 1 CASE

Luis Sanchez, 9110128

South Tower:

Five minutes later I just heard this loud noise. It was like an earthquake. It was shaking, and things was going down. I looked everywhere. There was nothing going on. I looked to the side, looked to my friend. There was nothing going on. When I looked up, I saw the top of the building floor by floor was coming down, collapsing. I was oh. (Inaudible.)

Were Explosives the Source of the Seismic Signals Emitted from New York on September 11, 2001?

By Dr. André Rousseau¹

We would like to thank Tod Fletcher, who provided editorial assistance by revising an earlier version of this article.

ABSTRACT

The seismic signals propagating from New York on September 11, 2001, recorded at Palisades (34 km) and published by the Lamont-Doherty Earth Observatory of Columbia University (LDEO), have here been subjected to a new critical study concerning their sources. The aim of this paper is to demonstrate that the nature of the waves, their velocities, frequencies, and magnitudes invalidate the official explanations which imply as sources the percussion of the twin towers by planes and the collapses of the three buildings, WTC1, WTC2 and WTC7.

First of all, we show the contradictions in the official explanation between the seismic data and the timing of the events. Then we point out that it is strange that identical events (percussions of identical towers on the one hand, and collapses of identical towers on the other hand) at the same location would have generated seismic sources of different magnitudes. We demonstrate that only strong explosives could be the cause of such seismic waves, in accordance with the observed low frequencies. According to the nature of the recorded waves (body and surface waves), we can propose a location of each explosive source. According to the presence of shear waves or the presence of Rayleigh waves only, we hypothesize a subterranean or a subaerial explosion. The magnitude of an aerial explosion is insufficient to provide seismic waves at 34 km.

The witnesses and video observation confirm our conclusions of subaerial explosions close to the times of aircraft impacts on WTC1 and WTC2, a strong subterranean explosion closely correlated with the WTC1 collapse, and subaerial explosions closely correlated with the WTC2 and WTC7 collapses, WTC7 not having been hit by a plane. As a consequence, we draw the conclusion that the three buildings were demolished by a controlled process.

¹ Dr. Rousseau is a former researcher in geophysics and geology at the National Center for Scientific Research (CNRS) of France and a specialist in acoustic waves. He is also a member of Scientists for 9/11 Truth.

INTRODUCTION

When major shocks occur at the Earth's surface or at depth, waves of different types, magnitudes and speeds may move out from the source location. Such waves can be detected by seismometers located at recording stations and the data from the recordings can be analyzed to learn many details of the source events. Seismic signals were recorded at stations in New York and four neighbouring states on September 11, 2001 during the period when the North and South Towers (WTC1 and WTC2, respectively) were struck by airliners and collapsed, as well as during the collapse of Building 7 of the WTC, which had not been hit by a plane.

Data from the Palisades, NY recording station, located 34 km north-north-east of Manhattan, published by the Lamont-Doherty Earth Observatory of Columbia University (LDEO), provide the most detailed seismic waveforms for analysis, particularly for the determination of the locations (surface or underground) and timing of the events that created the seismic waves.

Some authors have been puzzled in their analysis of signals recorded for the events at the World Trade Center, as the contradictions are significant. They are particularly intrigued by the presence of seismic "peaks" before the collapses. (See MacQueen, 2009). This text focuses on the study of the seismic signals from Palisades. The new interpretation presented here renders the assertions of the seismic analysis of the events at the WTC, as presented by the government in the NIST and other reports, null and void. On the contrary, all the documented evidence points to explosions as the source of the recorded seismic signals.

COMPOSITION OF DIFFERENT WAVEFORMS

Five waveforms will be analyzed below. They are attributed by the LDEO team to specific causes, as follows:

1. the signals that, according to LDEO, match the moment when the planes hit WTC1 and WTC2, respectively, shown in figures 1a and 1b;
2. the signals that match the collapses of WTC1 and WTC2, respectively, shown in figures 2a and 2b; and
3. the signal that shows the collapse of WTC7, shown in Figure 2c.

The analysis presented here will question LDEO's identifications of the causes of the waveforms.

Determination of the Timing of the Signals' Origins

In these five cases the origin of the signals was attributed, by the seismologists who published the data, to the impacts of the planes or the collapses of the buildings (Kim et al. 2001; Irvine, 2001; Hoffman, 2006). Normally in this type of study the time of origin is known with great precision (to the millisecond), which is necessary in order to calculate the propagation speed of the different waves. Unfortunately, that precision is not possible for the events at the WTC. In this case, timing of the waves must be correlated as well as possible utilizing video evidence.

The video used in this study for the North Tower (WTC1) was from a recording made by CNN with a time stamp on the screen (Hoffman, 2006), and the results were compared with the method utilized by LDEO (Kim et al. 2001). LDEO's method consisted of assigning an estimated speed of 2km/s for a Rayleigh wave (a type of surface seismic wave) that traversed several stations (see Figure 3) situated at various distances from the point of origin. The major inconveniences of this method are that the stations are not situated on a straight line, and that the surface terrain in which the surface waves move varies. The waves do not have the same speed of propagation as they pass through different materials.

The Hudson River is located on a fault line that separates predominantly sedimentary terrain on the west from crystalline and metamorphic rock on the east. These eastern formations permit more rapid surface wave propagation than those found to the west, which explains why the path WTC-MANY (Fig. 3), the only site to the east of the Hudson, was more rapid than all the other paths, situated to the west. In contrast, the stations at Palisades (34 km), at ARNY (67.5 km) and at TBR (51 km), provide similar results because they are situated on similar geological formations. Finally, the enormous indeterminacy of 2 seconds in the calculations attempting to fix the time of origin of each of the signals, admitted by the LDEO authors themselves (Kim et al., 2001), oblige us to view the official conclusions critically.

Waveforms Attributed to the Planes Crashing Into the Towers

The waveforms that the LDEO team attributes to the impacts of the airliners into the Twin Towers are shown in figures 1a and 1b. Although the waveforms look somewhat similar, they are sufficiently different to raise questions about LDEO's analysis. Although the cause of the two signals is similar -- the crashing of a plane, according to LDEO -- the magnitude (reflected by the amplitudes, or distribution on the vertical axis) of the two signals is different. Further, the waves generated by the two events do not have the same apparent velocity. The calculation of the propagation speeds, derived from the times measured in the graphs of Figures 1a and 1b between the origins fixed according to the corresponding crashes and the first wave arrivals -- namely, respectively 11.7 and 15.8 seconds - indicates roughly 2900 m/s for WTC1 and 2150 m/s for WTC2.

A more serious difficulty with LDEO's attribution of the waveforms to plane impacts at the Twin Towers is that even if the impacts had been considerably more energetic, these

signals could not have been generated by such impacts. The actual waves generated by the crashes had to have been deadened before hitting the ground. Frequencies of waves generated by explosions are on the order of 1 Hertz (1 Hz, or one cycle per second) -- which is the case with the Rayleigh waves shown in figures 1a and 1b -- while those of crash impacts are above 10 Hz and are often around 100 Hz. Furthermore, the range of the recording instruments (0.6-5 Hz) cited does not allow for the recording of the high-frequency waves that would be created by plane impacts. As to the theory of the oscillation of the Towers to explain these signals, as defended by Irvine (2001), it is inadequate because in such a case we would have had a "square" signal of long duration and a constant amplitude, while in actuality we observe a "bell-like" signal, representing a strong and brief explosion, which is particularly evident in the case of WTC2.

Given that it is geophysically impossible to have two different propagation speeds for two waves of the same type at the same frequency travelling the same path only a few minutes apart, one must bow to the evidence that the supposed origins of the recorded waves are incorrect, and that they are not linked to the plane crashes but to another origin. The waveform data, far from suggesting the conclusion of LDEO that they were caused by plane impacts into the Towers, suggest instead two explosions with different time displacements from the moments of plane impact at each building. Further, the difference in the magnitude of the two signals can only be linked to differences in the volume of explosives and/or their distance from the surface.

Waveforms Attributed to the Collapse of the Towers

While the Twin Towers had approximately the same mass, the same height and size, and the same type of internal structure (as well as essentially identical points of origin of the seismic wave-data in terms of distance to the recording station), the signals attributed to the collapses of WTC1 and WTC2, instead of being similar as one would suppose from the official thesis, are in fact very different. They differ in their form, their composition, and especially in their apparent propagation speed, as calculated from the official origin time.

In fact, the recording for WTC1 (Fig. 2a) demonstrates the three types of wave characteristic of a brief explosive source confined in a compact, solid material: a P wave with a speed of 6000 m/s, the typical value for a very consolidated crystalline or sedimentary terrain (which is the case in the bedrock of Manhattan), an S wave with a speed of 3500 m/s, and a surface wave with a speed of 1800 m/s (a Rayleigh wave). These values match those registered from an earthquake or seismic prospecting (see for example Kim et al. 2001).

On the other hand, the recording linked to WTC2 (Fig. 2b) does not show the P or S body waves observed for WTC1 but only the surface Rayleigh wave, for which the spreading of the amplitudes over the duration is different from that of WTC1. The propagation speed of 2125 m/s is also markedly different from that of WTC1. Further, this wave seems to be followed by a second Rayleigh wave four seconds later.

We find the same thing for WTC7 (Fig. 2c), where the calculation of the speed of the wave according to the determined origin time indicates a Rayleigh wave with a 2200 m/s speed. Note that the amplitudes are comparable to those of the waves emitted at the time of the crashing of the airplanes into the Towers. This wave seems to be followed by a second Rayleigh wave 6 or 7 seconds later.

In the three cases, the bell-like form points to an impulsive source of energy, not percussion on the ground due to the fall of debris. The total mass and the average mass of individual building fragments were relatively small and fell to the ground over a period of more than ten seconds (which is a very long time in geophysics). Also note that the duration of a seismic signal does not tell anything about the source, in distinction from the amplitude and, particularly, the frequency.

TIMING DISCREPANCIES

The problem of the "displacements" between the times of origin of the seismic waves and the times at which the planes crashed into the Towers, particularly that for WTC1, is certainly a key question and one that is emblematic of all the contradictions of the official version of September 11, 2001, as already pointed out by Furlong and Ross in 2006. The LDEO published two different timetables of wave-origins (Kim et al. 2001), which are presented in the table below. The first timetable (LDEO [1]) is that furnished with the published graphs. Then the LDEO modified its timetable (LDEO [2]). The widely varying but still, somehow, official times given by the 9/11 Commission and by the National Institute of Standards and Technology (NIST) are also presented in the table.

What are the indisputable data here? There are two: the time that the waves reached the Palisades station, which is relatively easy to determine, and the distance from the WTC to Palisades (34 km). If the recorded wave is actually a Rayleigh wave, its (group) velocity is around 2000 m/s. Therefore, this wave was created 17 seconds before its arrival at Palisades. Where the problem deepens for the defenders of the official version is that the time for the source of the Rayleigh wave attributed to the crash into WTC1, which officially arrived at Palisades at 8.46.42 \pm 1, must in fact be 8.46.25 \pm 1. Compare that time with the times given in the first column of the table below. Only the revised LDEO timetable (LDEO [2]) comes close.

	WTC1 impact[]	WTC2 impact	WTC1 collapse	WTC2 collapse	WTC7 collapse
9/11 Commission	8.46.40	9.03.11 (NORAD: 9.02)	10.28.25	9.58.59	
LDEO [1]	8.46.30	9.02.55	10.28.30	9.59.07	17.20.40
LDEO [2]	8.46.26 \pm -1	9.02.54 \pm -2	10.28.31 \pm -1	9.59.04 \pm -1	17.20.33 \pm -2
NIST	8.46.29 \pm -2	9.02.57 \pm -4	10.28.34 \pm -2	9.59.07 \pm -2	17.20.42 \pm -4

The times put forward by the 9/11 Commission come from radar at ground level and are based on the National Transportation Safety Board (NTSB) and Federal Aviation Administration (FAA) data. They are the only reliable times because they are based on ground radar data which do not involve any hypothetical assumptions. They are considered to be reliable to one second.

For the time of the impact of the plane into WTC1 furnished by the Commission, 8.46.40 (*9/11 Commission Report*, p. 7; Ritter, 2002), *there is a hiatus of 15 seconds between the plausible time of the origin of the Rayleigh wave based on the Palisades data and the time -- afterwards -- of the crash of the plane into WTC1 based on the ground radar data.* What else but an explosion could be the origin for this seismic wave in the absence of an earthquake? A similar discrepancy exists in the data for the seismic wave and impact times for WTC2.

Also, the crash of the plane into WTC2 cannot be the cause for a camera, solidly on the ground and probably mounted to a tripod, which is filming WTC1 (see 911Blogger.com, 2006) to strongly shake one second before the fireball following this impact and shake again five seconds later: Only strong explosions can cause such shaking. This has been discussed at length by MacQueen (*Journal of 9/11 Studies*, 2009)

SEISMIC WAVE-GENERATION FROM IMPACTS, COLLAPSES AND EXPLOSIONS

Attributing the transformation of kinetic energy into seismic waves to the crash of a jet into a building would make sense only if such a crash involved two full, solid and non-deformable objects. In this case, the kinetic energy of the moving body would in part be transformed into heat and the rest would be transmitted to the stricken object in the form of vibrations, that is, seismic waves. However, that is not the case here because we have two hollow and deformable objects. During the crash, the whole of the energy is transformed into heat and the envelopes (exterior walls) are deformed. In the case where a little mechanical energy would remain, the waves created in the pierced envelope would be quickly dispersed because of the absence of continuity in this envelope due to the spaces between vertical and horizontal structural members, such as rooms and windows. The necessary condition for the creation of seismic waves by such a crash would be the direct impact into the central columns by a full body. Even if a Boeing engine had hit a core column, it would have been with an energy lessened by passage through the building's envelope. In conclusion, even if a seismic wave could be created in a steel column, it would hit the ground only in the form of seismic noise, and as the passage from metal to rock is a refraction that absorbs energy, there would not be much left to propagate in the ground.

Could the collapse of the Towers be the source of seismic waves as claimed by LDEO and other defenders of the official account? The enormous mass of the Twin Towers could hypothetically be taken into account if the Towers had fallen in a compact block, like a meteorite. But in fact, it was mostly scattered shards, not coherent blocks, that fell, largely transformed into dust, and the fall spanned several seconds. This form of collapse

could only produce a force far below that necessary to create seismic waves; in this case, the magnitudes simply do not add up, and the result is a noise of various magnitudes and frequencies.

Given that neither the crashes into the towers, nor their vibration, nor the fall of debris can be the source of the seismic waves registered 34 kilometres away, as well as the fact that the low frequencies of those waves could not have been generated by such phenomena, we must search for the actual causes of the waveforms observed. Only explosions could produce the waves observed but various possible explosive configurations must be considered. We must distinguish between 1) subterranean explosions, 2) aerial explosions and 3) subaerial explosions (close to the ground without touching it).

Subterranean explosions are similar to earthquakes in that mechanical energy is transmitted to the earth in the form of body waves of two types, P and S (for "primary" and "secondary," or "pressure" and "shear"), and surface waves (either Rayleigh or transverse L) when the signal reaches a solid-fluid interface (for example, the atmosphere at the surface). Another name for Rayleigh waves is ground roll.

Aerial explosions release all of their energy in the air (as P waves, which in the atmosphere are simply sound waves), and what remains upon hitting the ground is thus too weak to create body waves in the solid earth (although there can be surface waves over a small distance).

Subaerial explosions give off energy that splits into sound waves, mainly in the air, and surface waves in the ground.

EXPLOSIONS THE SOURCE OF 9/11 SEISMIC WAVEFORMS

A subterranean explosion might not be heard, but the ground would shake and initiate a series of waves (body and surface waves). If we distinctly hear an explosion, it is either aerial, which does not give a seismic signal, or it is subaerial, in which case surface waves could be generated. The seismic wave data provided by Palisades prove the occurrence of surface waves radiating outward from the World Trade Center. In addition, witnesses reported hearing explosions very close to the times at which planes struck the Towers and when they collapsed (see particularly MacQueen, 2006).

Given these two types of evidence we can affirm that subaerial explosions occurred close to the base of the Towers almost or quite simultaneously with the crashes into the Towers by the planes. The sound coming from these explosions would have been mixed with the sounds generated by the impacts of the planes. The explosion at the base of WTC1 was heard and reported by William Rodriquez (Spingola, 2005).

The employees of the Secret Service, whose offices were in WTC7 wholly separated from WTC1, noticed this event: "On September 11, like any other morning, most of the Secret Service employees were either settling into their offices or still making their way

to work. Others were about to attend meetings to prepare for the upcoming meeting of the United Nations General Assembly. At 8:48 a.m. their offices in Building 7 shook and the lights flickered. Most of them stopped for a quick moment but quickly returned to their work” (Congressional Record, 107th Congress (2001-2002)). As a simple impact against a tower cannot be transmitted to a separated building, an explosion was the likely source of the shock in the offices.

The waveforms produced by the collapses of WTC2 and WTC7 were of a different type than that generated by the collapse of WTC1. Based upon the kind of waves coming from WTC2 and WTC7, they each underwent one or more very large subaerial explosions, heard and reported by witnesses. For example, in the case of WTC2, a fireman witnessed an explosion before the building collapsed into an enormous cloud of dust (see Testimony [1], below), apparently not too far from the base of the Tower, accompanied by flashes of light and noise, according to an "Assistant Commissioner" (see Testimony [2]). Another fireman, present at the base of WTC2, stated there was a large explosion about 20 floors below the impact zone of the plane just before the upper portion of the Tower began to collapse (Testimony [3]). These explosions were too high above the surface to generate body waves in the ground, and the Rayleigh wave recorded probably comes only from the explosion closer to the surface. Among the other explosions heard at the base of WTC2 (WhatReallyHappened.com, 2009), one of them generated the second Rayleigh wave recorded four seconds after the first. The same thing happened at WTC7. A witness watching this building heard something like a "thunderclap" that caused the windows to explode outwards, while the base of the burning building gave way a second later, before the whole building followed the movement (Testimony [4]), aided by a second explosion, which generated the second Rayleigh wave 6 to 7 seconds later.

The WTC1 collapse began *after* that of WTC2 in spite of the fact that it had been hit earlier, and a subterranean explosion preceded its collapse. This subterranean explosion was therefore not heard by the witnesses outside at 10:28 EDT, except for those located next to the Tower (Testimony [5]), but it was "felt" by a camera filming the tower that was solidly on the ground (probably 150 m from the tower at the Bankers Trust Building after the southward direction of the antenna fall) and was shaken by the vibration of the ground at the moment of the explosion (see [6]). On the other hand, it is also logical that the many explosions shown in videos of the upper floors before and during the collapse did not provoke any seismic waves, because of the aerial locations and the fragmentation in time of the detonated energy in the series of successive sources, each of which had only a limited force, insufficient to generate seismic waves in the ground.

Even if standard controlled demolitions do not create seismic waves (because the explosions are aerial), it is useful to compare the data from the World Trade Center on 9/11 with seismic data obtained during the controlled demolition of other buildings such as the Kingdome in Seattle (Pacific Northwest Seismograph Network, 2000) and at Oklahoma City (US) (Holzer et al., 1996). The case of the Kingdome is particularly interesting because seismologists expressly asked that the explosions be measured (in order to take advantage of the occasion to gather research data), and those in Oklahoma City were part of a reconstruction, using explosives, of the partially destroyed Alfred P.

Murrah Federal Building. These two examples involved a powerful subaerial explosion and the emitting of Rayleigh waves. Furthermore, the falling of the debris had no seismic consequences, even at distances well below 34 km (less than 7 km and 26 km respectively). Only the seismic equipment situated close to the source during the reconstruction of the bombing in Oklahoma City was able to record the seismic energy created by the collapse of the building.

The local magnitudes (M_L) that the LDEO seismologists calculated from the surface waves gave results that consolidate our analysis. They were higher than 2 on the Richter scale for the waves emitted at the moments of the collapses. It is impossible to get such a magnitude from the falling of the building debris alone, especially falling over a duration of ten seconds. Even if an entire Tower had been compacted into a tight ball, it would have necessitated a higher speed than could be caused by the Earth's gravity to even approach such a magnitude. Moreover, we must note that the magnitude attributed to the subterranean explosion at the WTC1 is $M_L=2.3$ -- comparable to the earthquake that hit New York on January 17, 2001 ($M_L=2.4$) -- while the magnitude coming from the WTC2 explosion is $M_L=2.1$, thus weaker. This disparity is consistent with the explosions described **in this study** and is particularly appreciable given the logarithmic scale used to designate event magnitudes. Given that the Twin Towers were of similar height and mass, the falling debris from the collapsing Towers should have generated similar magnitudes, if they were indeed the sources of the waves.

Applied geophysicists know how to generate seismic waves in the ground using non-explosive techniques such as "weight dropping" -- which consists of letting a heavy mass such as a three-ton weight fall to earth -- or using vibrators attached to the ground. But the energy of the waves developed in the ground by such methods is too low for the waves to go further than several hundred meters. On the other hand, similar seismic waves are commonly recorded from mining operations, generated by subterranean blasts of ammonium nitrate, and a few tons are enough to develop a magnitude of 2 to 2.5 on Richter scale.

THE RELATION BETWEEN THE SEISMIC WAVES AND THE PROCESS OF COLLAPSE

Observation from videos of the destruction of the Towers shows the processes differed, and this correlates with the differences between the corresponding seismic waves.

The collapse of WTC7 is the one that comes closest to a classic controlled demolition, with the successive collapsing of the floors starting from the base, which had been weakened by a strong subaerial explosion. As for the Twin Towers, it appears they were first weakened by explosions at their base at the moment the airplanes crashed into them. After that we must distinguish between the parts of the building above the impact zone of the planes and those located below. If the seismic waves could not have been generated by the explosions visible in the floors (which allowed for the gradual collapse upwards above the impact zone and downwards below this zone), then only a powerful explosion at the base of WTC2 and a subterranean one under WTC1 could have produced the

observed seismic waves. These basal explosions would facilitate the total, rapid disintegrations of the buildings.

In the case of WTC1, the Federal Emergency Management Agency (FEMA) implicitly confirmed this scenario. They noted, "Review of videotape recordings of the collapse taken from various angles indicates that the transmission tower on top of the structure began to move downward and laterally slightly before movement was evident at the exterior wall. This suggests that collapse began with one or more failures in the central core area of the building" (FEMA, *World Trade Center Building Performance Study*, Chapter 2). This transmission tower was supported by a lattice of large diagonal I-beams, called a "hat truss," that connected the walls of the perimeter of the building to the central structure between the 107th floor and the roof, and therefore reinforced the central structure. Contrary to official findings that it was the hat truss that transferred the instability of the central columns to those of the perimeter, which then gave out after they were deformed because of the pulling of the floors, the logic of the events forces us to consider that the rupture of the central columns came from an explosive event at the base of the building prior to its collapse.

CONCLUSION

Near the times of the planes' impacts into the Twin Towers and during their collapses, as well as during the collapse of WTC7, seismic waves were generated. To the degree that (1) seismic waves are created only by brief impulses and (2) low frequencies are associated with energy of a magnitude that is comparable to a seismic event, the waves recorded at Palisades and analyzed by LDEO undeniably have an explosive origin. Even if the planes' impacts and the fall of the debris from the Towers onto the ground could have generated seismic waves, their magnitude would have been insufficient to be recorded 34 km away and should have been very similar in the two cases to one another. As we have shown, they were not.

The types and magnitudes of the seismic signals show significant differences. The greatest differences occur in their propagation speeds, even though their paths were essentially identical under identical conditions. This difference is physically unexplained in the interpretation of the events offered by the LDEO researchers, the 9/11 Commission and NIST. Therefore, we must question their calculations of wave propagation speeds based on their assumption that the wave origins are shown on the video images of impacts and collapses. We can only conclude that the wave sources were independently detonated explosives at other times, thus accounting for the variable discrepancies for each wave origin in relation to the videos.

The composition of the waves is revealing both in terms of the location of the source and the magnitude of the energy transmitted to the ground. The subterranean origin of the waves emitted when WTC1 collapsed is attested by the presence of the P and S body waves along with the Rayleigh surface waves. The placement of the source of the four other explosions is subaerial, attested by the unique presence of only Rayleigh waves.

The aerial explosions visible on the videos of the upper floors of the Twin Towers do not produce seismic waves 34 km from the source.

There is a factor of ten between the power of the explosions at the time of the plane impacts on the Twin Towers (as well as at the time of the collapse of WTC7) and the strength of those more powerful explosions at the times of their collapses, the subterranean explosion under WTC1 being the one that transmitted the most energy to the ground.

Note that in accordance with the degree of dispersion of the surface waves (i.e., their speeds depend upon their frequencies), the duration of the recorded signal is not representative of the duration of the signal at the source.

Finally, controlled demolition of the three towers, suggested by the visual and audio witness testimony as well as by observations of video recordings of their collapses, is thus confirmed and demonstrated by analysis of the seismic waves emitted near the time of the plane impacts and at the moments of the collapses.

Testimonies from Witnesses

Note: Testimonies 1, 2, 3 and 5 are taken from "Oral Histories from Sept. 11 Compiled by the New York Fire Department," *The New York Times* (2005). (http://graphics8.nytimes.com/packages/html/nyregion/20050812_WTC_GRAPHIC/met_WTC_histories_full_01.html)

(1) Interview of fireman Richard Banaciski, who was in the street facing WTC2

I just remember we were -- initially we were out by the street and they started having jumpers, so they all kind of moved back towards the parking garage, towards the building, so nothing would come down on us.

We were there I don't know, maybe 10, 15 minutes and then I just remember there was just an explosion. It seemed like on television they blow up these buildings. It seemed like it was going all the way around like a belt, all these explosions. Everybody just said run and we all turned around and we ran into the parking garage because that's basically where we were. Running forward would be running towards it. Not thinking that this building is coming down. We just thought there was going to be a big explosion, stuff was going to come down.

There was just a tremendous cloud that came into the parking garage.

(http://graphics8.nytimes.com/packages/pdf/nyregion/20050812_WTC_GRAPHIC/9110253.PDF)

(2) Interview of Assistant Commissioner Stephen Gregory, who was in the street facing WTC1

At that point in time we heard a rumble, we heard a noise, and then the building came down. ...

[Lt. Evangelista and I] both for whatever reason -- again, I don't know how valid this is with everything that was going on at that particular point in time, but for some reason I thought that when I looked in the direction of the Trade Center before it came down, before No. 2 came down, (...) I saw low-level flashes. In my conversation with Lieutenant Evangelista, never mentioning this to him, he questioned me and asked me if I saw low-level flashes in front of the building, and I agreed with him because I thought -- at that time I didn't know what it was. I mean, it could have been as a result of the building collapsing, things exploding, but I saw a flash flash flash and then it looked like the building came down.

Q. Was that on the lower level of the building or up where the fire was?

A. No, the lower level of the building. You know like when they demolish a building, how when they blow up a building, when it falls down? That's what I thought I saw. And

I didn't broach the topic to him, but he asked me. He said I don't know if I'm crazy, but I just wanted to ask you because you were standing right next to me. He said did you see anything by the building? And I said what do you mean by see anything? He said did you see any flashes? I said, yes, well, I thought it was just me. He said no, I saw them, too. I don't know if that means anything. I mean, I equate it to the building coming down and pushing things down, it could have been electrical explosions, it could have been whatever. But it's just strange that two people sort of say the same thing and neither one of us talked to each other about it. I mean, I don't know this guy from a hole in the wall. I was just standing next to him. I never met the man before in my life. He knew who I was I guess by my name on my coat and he called me up, you know, how are you doing? How's everything? And, oh, by the way did you ... It was just a little strange.

Q. On the television pictures it appeared as well, before the first collapse, that there was an explosion up on the upper floors.

A. I know about the explosion on the upper floors. This was like eye level. I didn't have to go like this. Because I was looking this way. I'm not going to say it was on the first floor or the second floor, but somewhere in that area I saw to me what appeared to be flashes. I don't know how far down this was already. I mean, we had heard the noise but, you know, I don't know.

(http://graphics8.nytimes.com/packages/pdf/nyregion/20050812_WTC_GRAPHIC/9110008.PDF)

(3) Interview of fireman William Reynolds who was in front of WTC2

After a while, and I don't know how long it was, I was distracted by a large explosion from the south tower and it seemed like fire was shooting out a couple of hundred feet in each direction, then all of a sudden the top of the tower started coming down in a pancake. ...

[The fire] appeared somewhere below [the upper levels where it started collapsing]. Maybe twenty floors below the impact area of the plane. I saw it as fire and when I looked at it on television afterwards, it doesn't appear to show the fire. It shows a rush of smoke coming out below the area of the plane impact.

(http://graphics8.nytimes.com/packages/pdf/nyregion/20050812_WTC_GRAPHIC/9110288.PDF)

(4) 9/11/2001 radio broadcast, "9/11 Videos: The Controlled Collapse of WTC7"

I was just standing there, ya know... we were watching the building [WTC 7] actually 'cuz it was on fire... the bottom floors of the building were on fire and... we heard this sound that sounded like a clap of thunder... turned around - we were shocked to see that the building was... well it looked like there was a shockwave ripping through the building and the windows all busted out... it was horrifying... about a second later the bottom floor

caved out and the building followed after that... we saw the building crash down all the way to the ground... we were in shock.

(<http://whatreallyhappened.com/WRHARTICLES/wtc7.html>)

(5) Interview of EMS Lieutenant Bradley Mann

We were in the staging area the entire time. Shortly before the first tower came down I remember feeling the ground shaking. I heard a terrible noise, and then debris just started flying everywhere. People started running towards the staging area. ...

By the time the debris settled from the first collapse, we started to walk back east towards West Street and a few minutes later -- I really don't remember the time frames because we were so busy in trying to account for who was in the staging area and who wasn't -- we basically had the same thing. The ground shook again, and we heard another terrible noise and the next think we knew the second tower was coming down. And again we were running for our lives on Vesey Street.

(http://graphics8.nytimes.com/packages/pdf/nyregion/20050812_WTC_GRAPHIC/9110194.PDF)

(6) Video proving the existence of an explosion at the base of WTC1

"This 2.6 wmv video...shows the collapse of WTC1...The camera was not hand held, it was directly connected to the ground via a tripod, and this allowed the camera to visually capture a ground shake which occurred ~13 seconds before the building collapsed. The video also shows an object fall from the right hand side of the building moments before the camera begins to shake. The close timing of these two events indicates they are linked."

(<http://whatreallyhappened.com/WRHARTICLES/shake.html>)

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Figures

Figures are shown as published by the LDEO without modification of their scales, which are not uniform.

Captions of Figures 1 and 2 :

- the “start time” is expressed in Universal Time with the date; the time in bold print is the local time
- the horizontal axis is the wave propagation time axis in seconds (“s”)
- the vertical axis represents the ground displacement (here horizontal) indicated on right by the marks 0 to 10 (Figures 1a, 1b and 2c) or 0 to 100 (Figures 2a and 2b)
- PAL : Palisades station ; E : short periods ; H : high gain ; E : compound east
- Filter : 0.6-5 Hz.

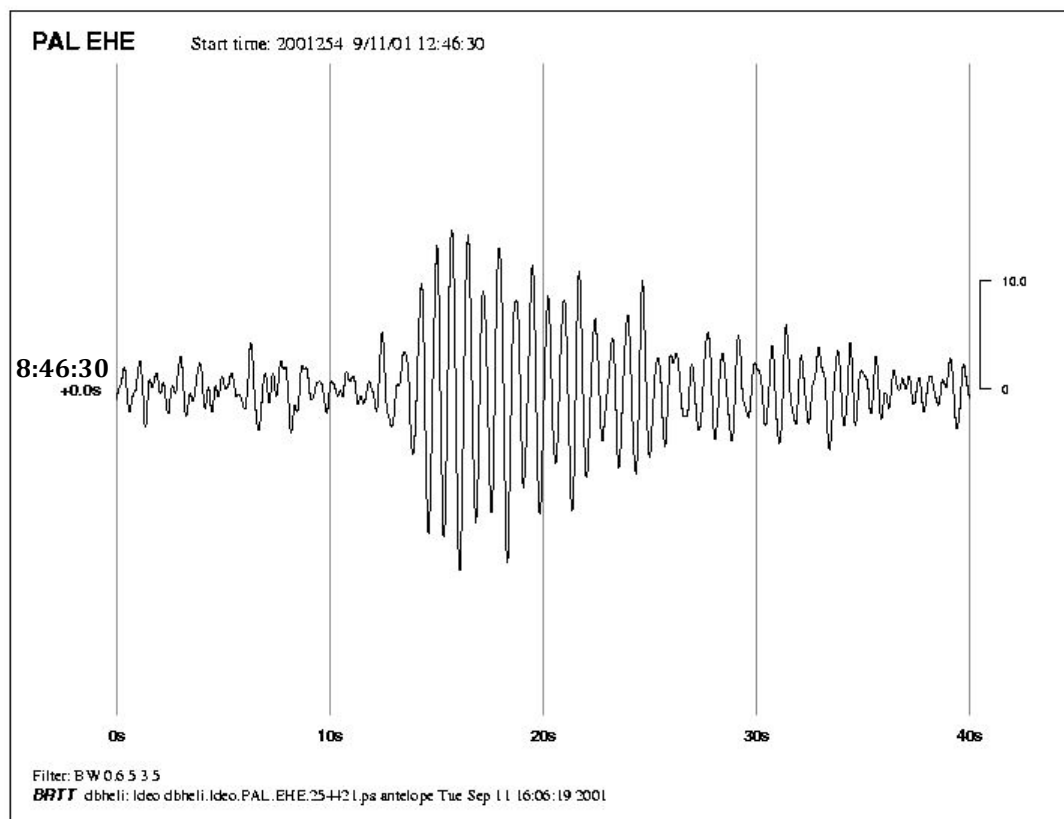


Figure 1a: Seismic waves recorded at Palisades closest to the time of aircraft impact on WTC1

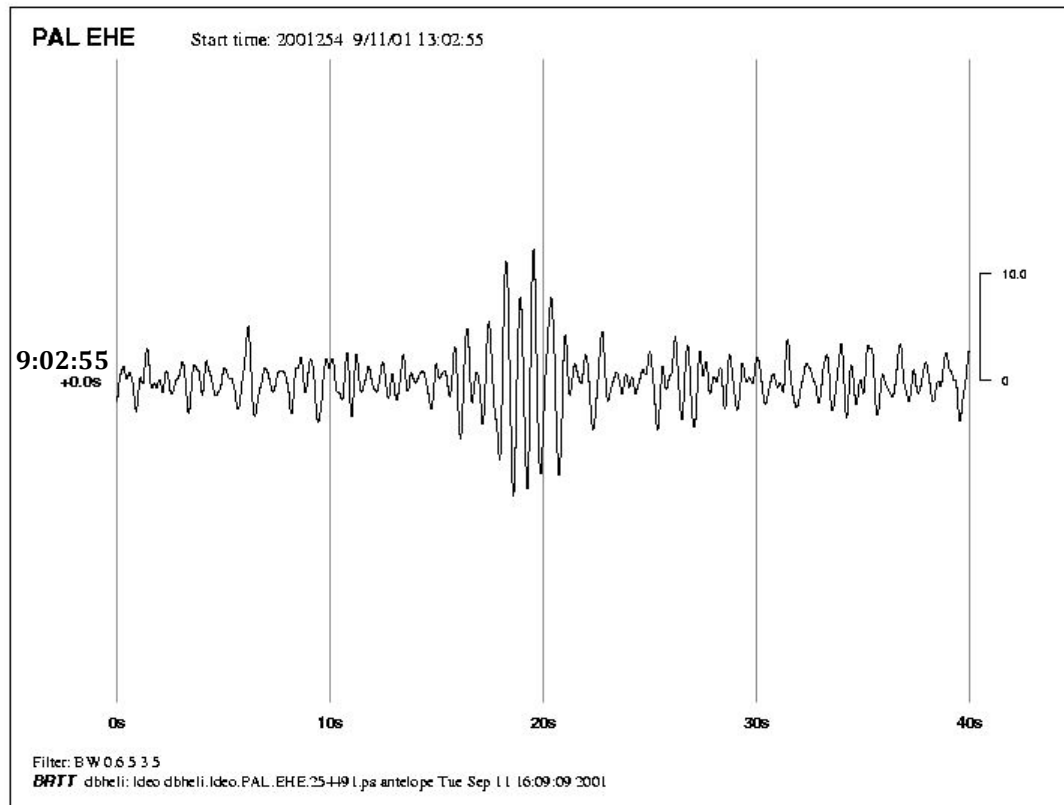


Figure 1b: Seismic waves recorded at Palisades closest to the time of aircraft impact on WTC2

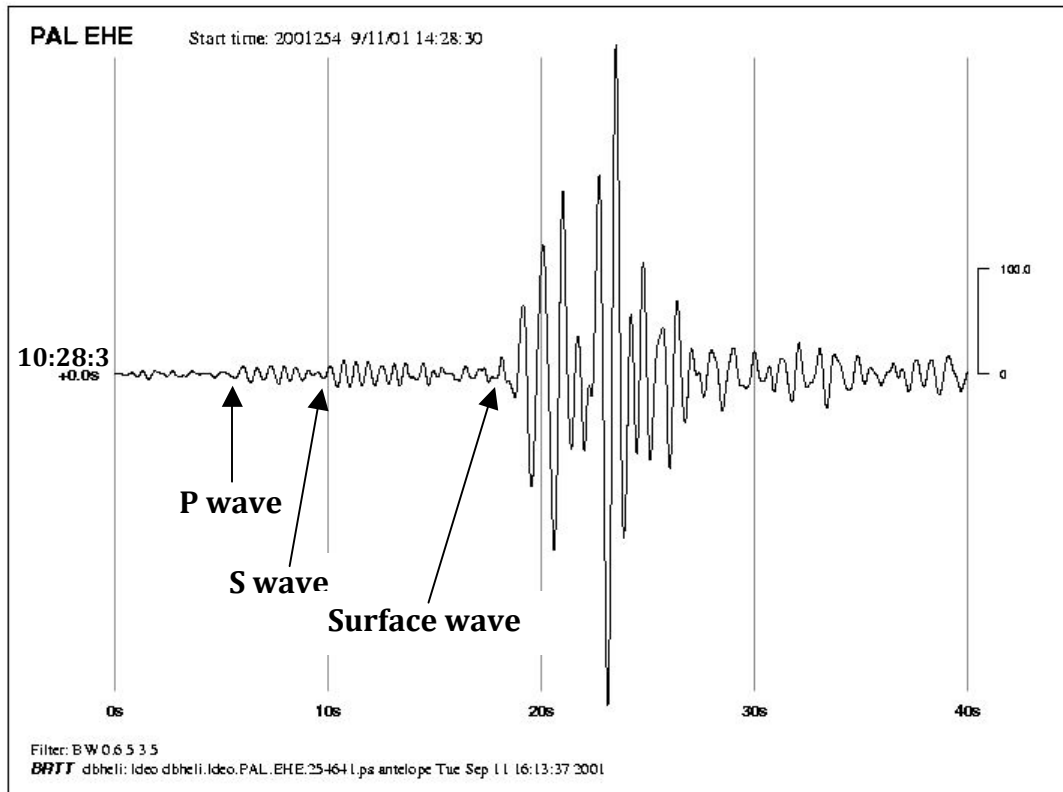


Figure 2a: Seismic waves recorded at Palisades that most closely correlated with the time of the WTC1 collapse

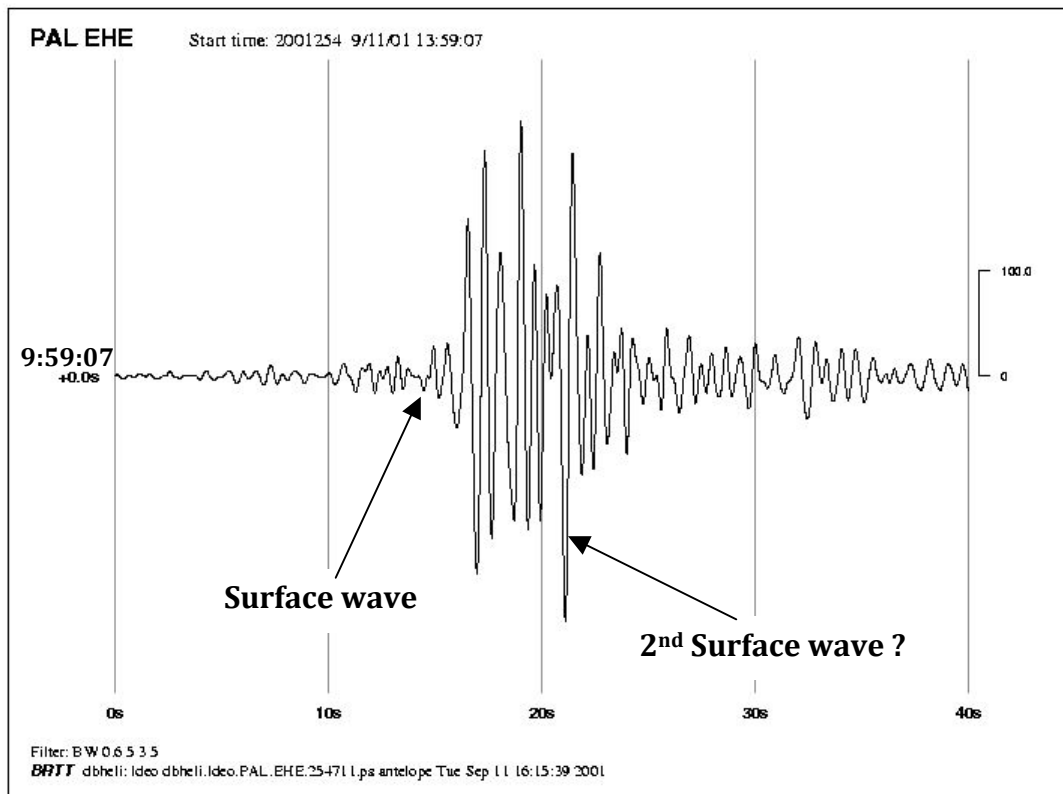


Figure 2b: Seismic waves recorded at Palisades that most closely correlated with the time of the WTC2 collapse

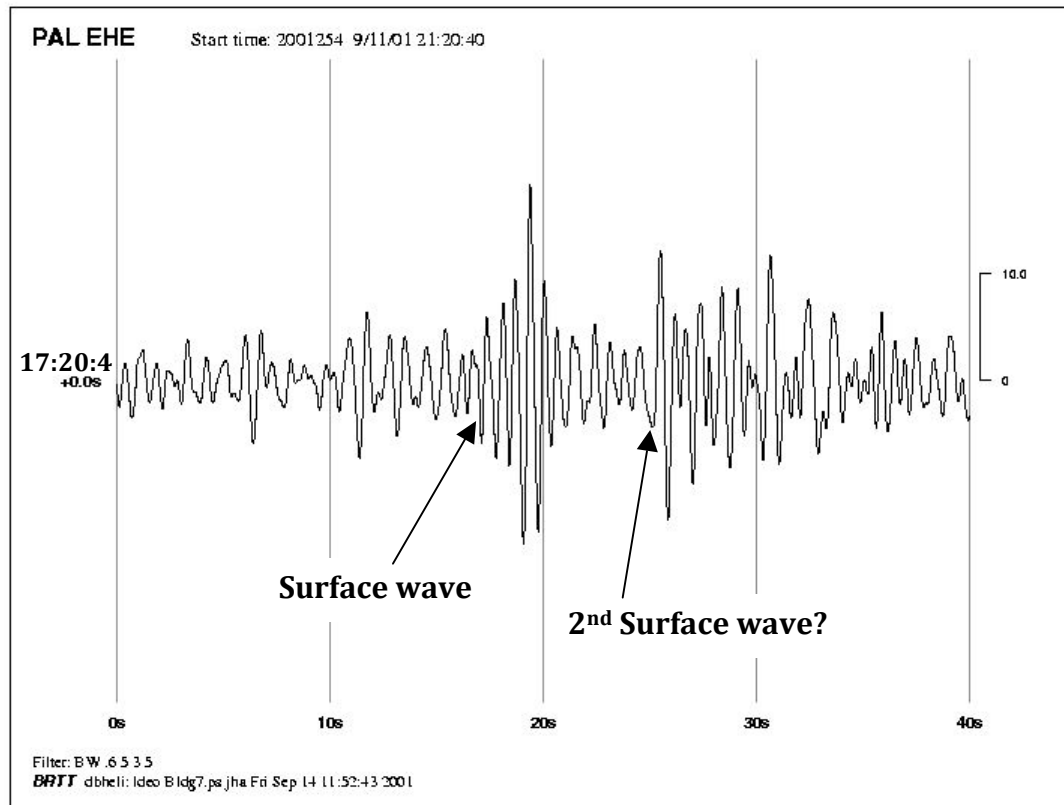


Figure 2c: Seismic waves recorded at Palisades that most closely correlated with the time of the WTC7 collapse

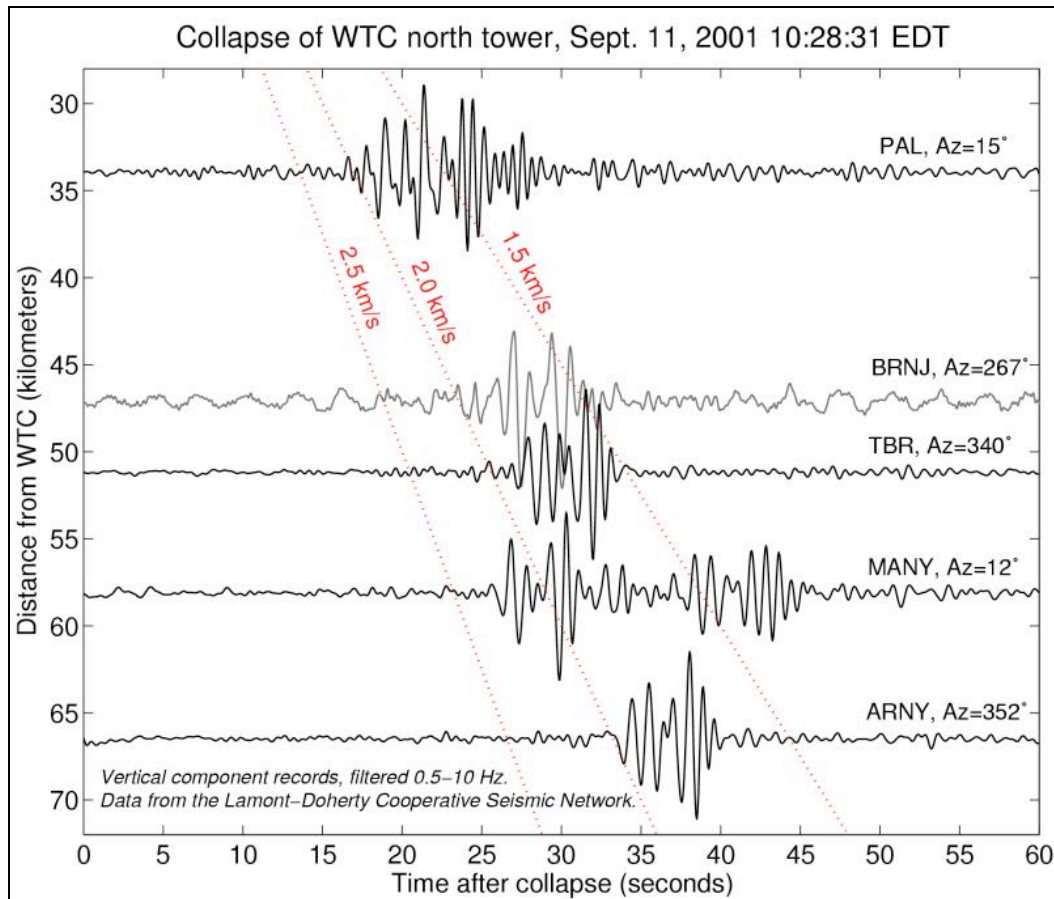


Figure 3: Research of the origin time for the signal emitted during the collapse of the north tower

EDT : local time

Az =azimut

Station PAL : Palisades,

BRNJ : Basking Ridge, New Jersey

TBR : limit NewYork-New Jersey

MANY : State of New York

ARNY : State of New York

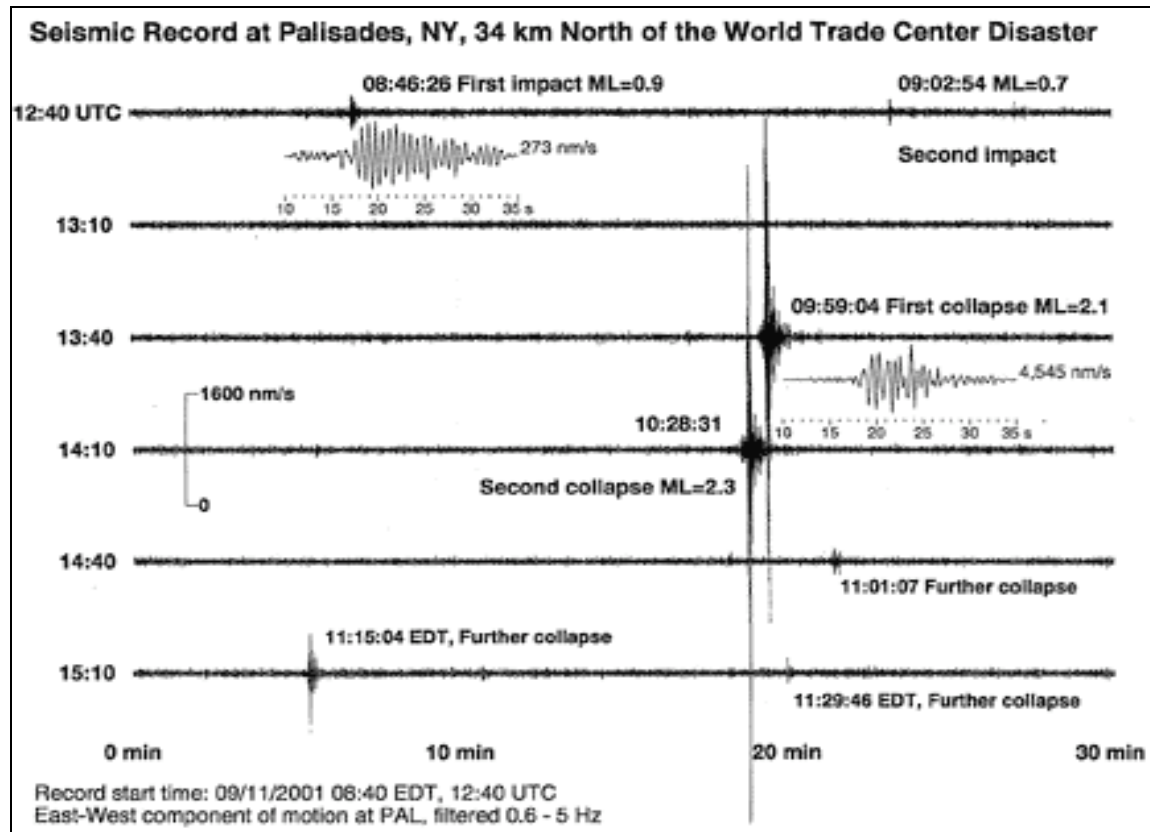


Figure 4: The seismic "peaks"

UTC : Universal Time

EDT : local time

ML : local magnitude

Vertical axis nm/s: ground displacement (horizontal here) in nanometers by second

[TO HOME PAGE](#)

Ground Zero – Nuclear Demolition of the World Trade Center.

An improved English version of the scandalous article from the NEXUS German magazine.



“...If you tell a lie big enough and keep repeating it, people will eventually come to believe it. The lie can be maintained only for such time as the State can shield the people from the political, economic and/or military consequences of the lie. It thus becomes vitally important for the State to use all of its powers to repress dissent, for the truth is the mortal enemy of the lie, and thus by extension, the truth is the greatest enemy of the State.”

- Joseph Goebbels, Reich Minister of Propaganda in Nazi Germany from 1933 to 1945.

“...society rests ultimately on the belief that Big Brother is omnipotent and that the Party is infallible. But since in reality Big Brother is not omnipotent and the party is not infallible, there is need for an unwearying, moment-to-moment flexibility in the treatment of facts. The keyword here is “blackwhite”. Like so many Newspeak words, this word has two mutually contradictory meanings.

Applied to an opponent, it means the habit of impudently claiming that black is white, in contradiction of the plain facts. Applied to a Party member, it means a loyal willingness to say that black is white when Party discipline demands this. But it means also the ability to believe that black is white, and more, to know that black is white, and to forget that one has ever believed the contrary.

This demands a continuous alteration of the past, made possible by the system of thought which really embraces all the rest, and which is known in Newspeak as “doublethink”. The alteration of the past is necessary for two reasons, one of which is subsidiary and, so to speak, precautionary...”.

- George Orwell, “Nineteen Eighty-Four”.

“...We must speak the truth about terror. Let us never tolerate outrageous conspiracy theories concerning the attacks of September the 11th; malicious lies that attempt to shift the blame away from the terrorists, themselves, away from the guilty...”

- Remarks by President G. W. Bush to the United Nations General Assembly U.N. Headquarters, New York, New York, November 10, 2001 9:38 A.M. EST

Yes. Agree. Let us do it, Mr. Bush. Let us stop tolerating those outrageous conspiracy theories right away...

Let's begin with the most outrageous of all of the 9/11 conspiracy theories – with the one that states that aviation fuel (“kerosene”) could instantly “melt” huge amounts of structural steel into fluffy microscopic dust and that the location where such a spectacular feat occurred could possibly be known as “ground zero”...

11. September: Die dritte Wahrheit

September 11 - The Third Truth.

(English version *with additional videos and photos*)

Originally published in German by NEXUS magazine, October-November 2010:

<http://www.nexus-magazin.de/ausgaben/nexus-magazin-31-oktober-november-2010>

pages 2, 32-49;



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The third truth about September 11

The official story of September 11th is a bag of lies and this seems to be a proven fact within communities outside the mainstream. What really did happen? A new series of revelations by a former member of Soviet nuclear intelligence has shocked even those who believed they had a clear view behind the curtain.



Dimitri Khalezov

How exactly did the WTC buildings collapse? The analytical work of an expert on nuclear explosions leads us to a shocking conclusion.

When ordinary people saw how two planes struck the Twin Towers of the World Trade Center in New York and how the Twin Towers then collapsed into clouds of dust during the 9/11 events, they were too shocked by the incidents to subject the events to any level of scrutiny. Since then, the odd notion has been embedded into people's minds: that hollow aluminum planes could supposedly penetrate thick steel buildings in their entirety and that aviation fuel (kerosene) could supposedly "melt" these steel buildings into fluffy microscopic dust...

Sooner or later, these ridiculous notions need to be discarded. The Twin Towers' collapses had absolutely nothing to do with neither planes nor the fires which resulted as a result of the "crashes". This is an obvious fact that occupies the minds of millions of Americans who are unhappy with the official interpretation of the World Trade Center's destruction over the course of at least the last 6 years. After the initial shock caused by the 9/11 events had subsided, many people began to realize there were simply too many inconsistencies in the official version.

First off, what caught their attention was that the order in which the Twin Towers collapsed did not correspond to the order in which they were struck by planes. The South Tower, which was hit second, collapsed first, and the North Tower, which was hit first, collapsed second. This meant that it took the “fires” 1 hour and 42 minutes to “collapse” the first Tower and only 56 minutes to “collapse” the second Tower. Considering that the fires in both Towers were caused by approximately the same quantities of kerosene and considering that the Towers were Twins (i.e. they were absolutely identical in their strength), this became the first clear indication that their collapses had nothing to do with fire alone. The next realization came after 9/11 researchers began to consider that World Trade Center building #7 (an enormously strong modern steel-frame 47-story high skyscraper) had also collapsed in a similar manner later on that afternoon on that very same day, but without having been hit by a plane. If the collapse of the Twin Towers was to be officially blamed on kerosene carried by “planes”, then the collapse of WTC-7 was unexplainable to such an extent that the official Report of the 9/11 Commission preferred not to mention the collapse of WTC-7 at all – as if the collapse of a 47-story high modern skyscraper was not worthy of a single mention. Comparison of these three events and a lot of irregularities surrounding their collapses brought the first 9/11 researchers to the realization that they were being lied to by the authorities and that the destruction of the World Trade Center had nothing to do with kerosene or any “planes” because *no planes were needed in the first place*. The mere collapse of WTC-7 later on that same afternoon on September 11, 2001 proved that no actual terrorist planes were required in the first place and that the collapse of the World Trade Center buildings would have occurred regardless—irrespective of any “planes”. Someone simply needed the World Trade Center buildings to collapse and that is why they collapsed. From this point on, the so-called “9/11 Truth Movement” had begun.

People then began to accuse the US Government of having intentionally demolished the World Trade Center in an industrial process known as a “controlled demolition”. More and more people in America started to accuse their own government of having been the main culprit behind the 9/11 attacks and eventually more than 65% of the US population expressed their disbelief in the official explanation of the 9/11 attacks and of the World Trade Center’s collapse. In fact, anybody who has watched contemporary 9/11 coverage closely enough can remember the following screenshots where a “third explosion” was mentioned:





Video - YouTube direct link: <http://www.youtube.com/watch?v=7oZ1h8mYwbw>

VIDEO 1:

Here it is – the seditious video footage by CNN where lines of text were shown that insisted it was a certain “third explosion” that first “shattered” and then – “collapsed” the South Tower of the World Trade Center. The North Tower (the one with an antenna) had not yet collapsed at that moment. It would fall later on – from a “fourth explosion”, but CNN by that time would receive a severe reprimand from the so-called “good guys” and would never again dare mention such seditious words as “explosions”. The Twin Towers of the World Trade Center would be declared as “destroyed by kerosene”, while WTC building 7 (which was not hit by any plane from alleged “terrorists”) – “destroyed by diesel oil” (since the storing of diesel oil was indeed kept in WTC-7 for emergency power generators).

And, understandably enough, most people who disagree with the official “kerosene” theory accuse the US Government of having intentionally demolished the World Trade Center. However, they don't actually have much understanding of demolition processes in general and more specifically of the World Trade Center's actual construction. That is why quite a few “conspiracy theories” have emerged that range from claims that the WTC was supposedly “wired with explosives” to claims that it was supposedly demolished by so-called “nano-thermite” (a mystic substance never heard of until now) which they claim was supposedly “used as a coating” on each and every steel piece of the Twin Towers' bearing structures. There are even more bizarre conspiracy theories that pin the collapse of the Twin Towers' on supposed “high-tech weapons” – such as laser beams originating from space for example. Of course, none of these conspiracy theorists actually ever agree with one another and they focus their time not only on accusing the US Government of having been the main culprit behind 9/11, but they also accuse each other of “muddying the waters of the truth”. The problem with all these conspiracy theorists in general is that they do not really know what happened to the World Trade Center and, more importantly, they don't know *why* it happened.

The author of this article will try to present his readers with something different. Instead of presenting just another “conspiracy theory”, he will instead present his expert opinion and eyewitness testimony along with his experience and knowledge from his former position in the Soviet Army. As a result of this approach, he hopes the reader will receive a far better explanation in regards to the demolition of the WTC that which he or she could never have received on any Internet forum dealing specifically with the WTC conspiracy.

Ground Zero and ground zero.

To begin with, I would like to remind everyone that the location of the former World Trade Center in New York is called “Ground Zero” in English. Many people don't seem to realize what the term “ground zero” actually means

and how important this is from an evidentiary point of view. Most of us just accepted "Ground Zero" as some sort of proper noun – as if it were the name of a city or the name of a ship. However, not many people today realize that the rather peculiar name "ground zero" was assigned to the location of the former WTC much too prematurely for it to have been an actual "Proper Noun" when referring to the WTC. Almost immediately after the collapse of the Twin Towers (and just a few hours before the collapse of the WTC-7) – i.e. by noon on September 11, 2001, almost every government official and even some news reporters had already begun referring to the location as "ground zero". All news releases printed the next day even referred to the location of the former WTC as "ground zero" and this particular term continued to be spelled out in lower-case letters. The usage of the term "ground zero" in relation to the former WTC area continued even throughout September 12, 2001 and several news agencies even continued using the term "ground zero" in lower-case letters throughout September 13, 2001. Only then, as if someone had caught on, did this particular term immediately become elevated in status to "Ground Zero" with Capital Letters. As such, it, at last, became a Proper Noun. But what about the term "ground zero" in lower case letters – i.e. not in the status of a Proper Noun yet?

Why would officials have referred to the WTC almost immediately after its collapse by this particularly peculiar term? Was it a mistake caused by all the confusion going on in the midst of the unprecedented 9/11 events? I would answer "yes". It was definitely a mistake that occurred during the overall confusion in that this particular term slipped out to the public. It was, however, not a mistake in the sense that the wrong term was being used to refer to the WTC as "ground zero" – simply because it was just too early at the moment to have chosen a Proper Name for the site where the WTC had just been destroyed. In fact, Civil Defense specialists were absolutely correct when they designated the area as "ground zero". There was absolutely no mistake in making such a designation from a Civil Defense specialist's perspective. It was definitely a "ground zero" in the sense which they understood it to be. It was, however, absolutely a mistake in the sense that the particular term "ground zero" had inadvertently been leaked to journalists and through them...to the general public. After that, it was simply too late to quash the Civil Defense designation of "ground zero" and desperate US officials had no choice but to "Capitalize" the seditious term by converting its correct Civil Defense's designation of "ground zero" to its very own Proper Noun: "Ground Zero".

To begin with, I would like to quote a statement concerning a hero from 9/11 – Detective John Walcott, a "Ground Zero" responder, who spent a considerable amount of time at the WTC site cleaning rubble from of the World Trade Center. He had spent enough time there to develop a very interesting disease: acute myelogenous leukemia in its terminal form. Just a mere two paragraphs taken out of a frightening article entitled "**Death by**

Dust"^[1] managed to contain and reveal practically all the "unexplainable" things many had questions about concerning "Ground Zero". The excerpts below will provide the reader with some key basic points which will allow you to better understand the main point of this article – that of dust and radiation:

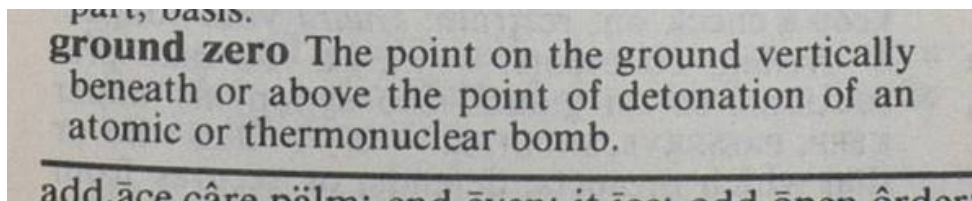
"...Because Walcott was a detective, he ended up spending his five-month stint not just at Ground Zero, but also at Fresh Kills. As much as he choked on the Lower Manhattan air, he dreaded the Staten Island landfill. Walcott knew everything in the towers had fallen - desks, lights, and computers. But apart from the occasional steel beam, the detritus that he sifted through there consisted of tiny grains of dust - no furniture pieces, no light fixtures, not even a computer mouse.

At times, the detectives would take shelter in wooden sheds, in an attempt to get away from what Walcott likes to call "all that freaking bad air." One day, he was sitting in the shed with his colleagues, eating candy bars and drinking sodas, when some FBI agents entered. They were dressed in full haz-mat suits, complete with head masks, which they had sealed shut with duct tape to ward off the fumes. As Walcott took in the scene, contrasting the well-protected FBI agents with the New York cops wearing respirator masks, one thought entered his mind: What is wrong with this picture?"^[2]

Yes, Mr. Walcott, unfortunately something was wrong. Something was very badly wrong with that picture...

Those FBI agents, who had no shame in showing up in full haz-mat suits, moreover sealed shut with duct tape, knew the truth, as they stood in front of the "commoners". That is why today these guys don't suffer from leukemia or from any other kinds of terminal cancer. The FBI agents will apparently live long and fulfilling lives, despite having briefly visited "Ground Zero"...

If you were to only open up a contemporary dictionary and look up the actual meaning of this peculiar term, you wouldn't need to ask that question; you would immediately understand what was wrong with "Ground Zero":



Above – all possible meanings of “ground zero” as defined by The New International Webster’s Comprehensive Dictionary of the English Language (Deluxe Encyclopedic Edition 1999, ISBN 1-888777796), page 559.

It should be noted that Mr. John Walcott eventually managed to survive, unlike many of his colleagues who used to work at “Ground Zero” and who were not as lucky as him. On December 17, 2007, it was briefly mentioned in

an Internet news article ^[3] that John Walcott had at last undergone a truly advanced (and extremely painful) operation known as a bone **marrow transplantation**. From now on, he could continue to live, but only on special immuno-depressant drugs which prevent transplant rejection; and without ever leaving his home due to the fact his entire immune system no longer exists and any kind of infection can easily prove fatal.

For anyone who doesn’t know what “marrow transplantation” is, I am obliged to explain. A marrow transplantation is required in patients who have incurred heavy doses of either penetrating or residual ionizing radiation (or both) and whose own bone marrow (which is responsible for blood regeneration) has been completely killed off by heavy doses of radiation.

This is a particularly unique property of radiation – it strikes bone marrow cells more heavily than it does other cells in the human body. That is why the majority of victims of radiation suffer from leukemia. And, the heavier the dose of radiation, the more bone marrow is killed off, thus, the worse the case of leukemia the patient suffers from. John Walcott apparently suffered from the most severe possible condition – before obtaining his bone marrow transplantation, he was living exclusively on donors’ blood because his own blood was not regenerating at all.

In addition to killing off or severely damaging bone marrow, ionizing radiation, especially when someone inhales or ingests radioactive dust or radioactive vapor, causes various kinds of cancers that can affect virtually any part of the human body and even several parts all at once.

It is, however, not too difficult for dishonest doctors and health officials to provide plausible “explanations” as to what may have caused these cancers. They can just claim it was due to “asbestos”, “toxic fumes”, “toxic dust particles”, etc. However, when it comes to bone marrow damage, these deceivers are caught right in their tracks because bone marrow damage can only be caused by ionizing radiation.

That is precisely why the FBI agents showed up in full “haz-mat” suits and even had their head masks sealed shut with duct tape to “ward off fumes” while visiting “Ground Zero”. They didn’t want to suffer from leukemia nor from any other cancer, so they went as far as to seal their head masks shut with duct tape, not just to “ward off the fumes”, as John Walcott had believed, but because they needed to ward off airborne radioactive dust, and more specifically, radioactive vapor, which must not be inhaled or ingested at all costs.



Volunteers at “ground zero” amidst the Twin Towers’ debris and amidst streams of radioactive vapor ascending from under the debris – the photo was taken approximately five weeks after the events.

Indeed, I can assume some readers may simply be just too shocked by this particular revelation and may not tend to believe me – thinking that I am merely speculating on uncertainties. However, the abovementioned story regarding John Walcott and those FBI agents wearing haz-mat suits at “ground zero” had nothing to do with me personally – it exists as a matter of fact independently of the humble author of this article. Also independent of the author of this article stands the actual legal definition of “ground zero” which before 9/11 used to be as follows:

ground/ ze/ro, the point on the surface of the earth or water directly below, directly above, or at which an atomic or hydrogen bomb explodes.

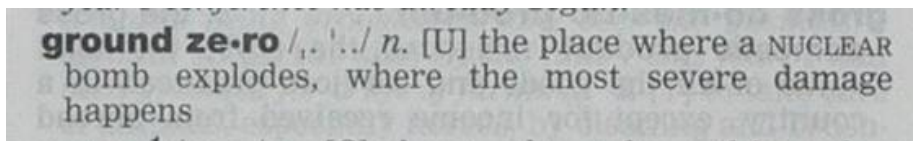
“ground’ ze’ro” – *the point on the surface of the earth or water directly below, directly above, or at which **an atomic or hydrogen bomb explodes**.*

Webster’s Encyclopedic Unabridged Dictionary of the English Language (Edition 1989, printed in 1994, ISBN 0-517-11888-2).

unit; ground zero = point on the ground directly under the explosion of a nuclear weapon; **dead ground** = area of ground

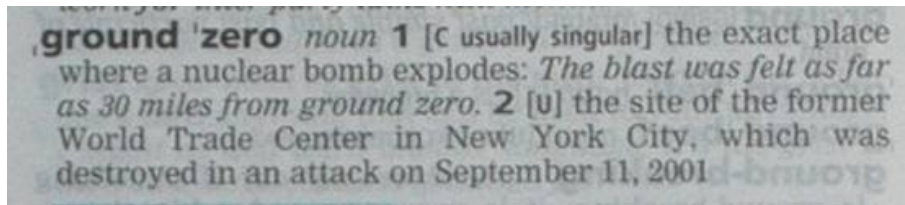
“ground zero” = *point on the ground directly under **the explosion of a nuclear weapon**.*

Dictionary of Military Terms (Peter Collins Publishing 1999, ISBN 1-901659-24-0).



"ground ze-ro" /,ˈzɪr.oʊ/ n [U] *the place where a **NUCLEAR bomb explodes**, where the most severe damage happens*

Longman Advanced American Dictionary (new, first published 2000, ISBN 0 582 31732 0).



"ground zero" *noun* **1** [C usually singular] *the exact place where a **nuclear bomb explodes**: The blast was felt as far as 30 miles from ground zero.* **2** [U] *the site of **the former World Trade Center in New York City, which was destroyed in an attack on September 11, 2001.***

Cambridge Advanced Learner's Dictionary, 2nd Edition. (2nd Edition 2006, ISBN-13 978-0-521-60499-4 - this is a post 9/11 edition, widely available).

The above were complete, unabridged definitions of "ground zero". It was the only definable and proper definition of its meaning. If you don't believe your eyes and prefer to run to the nearest book store and buy an English dictionary, don't be in too much of a hurry.

When you arrive at the shop you will be surprised even further because as of now it is no longer possible to even find a dictionary that contains the original, unedited definition of the term. All dictionaries printed before 9/11, like those which I mention above, containing the original correct meaning of "ground zero", have been removed from book-shelves and replaced with newer ones. Unfortunately, the very English language itself was one of the first victims of the 9/11 perpetration...

The dictionaries' photos below were not present in the original version of this article in NEXUS magazine; however, I decided to add them to this Internet-version, since they are very illustrative.

These photos compare similar dictionaries produced by the very same publishers that had previously printed them - and after the name "ground zero" was inadvertently awarded to the location of the nuclear demolition of the World Trade Center:

<p>ground stroke <i>n.</i> in tennis, a shot played from any part of the court after the ball has bounced</p> <p>ground substance <i>n.</i> the solid, semi-solid, or liquid material that exists between the cells in connective tissue, cartilage, or bone</p> <p>groundswell /grównd swel/ <i>n.</i> 1. DEEP WAVES a deep wide up-and-down movement of the sea, often caused by a far-off storm or an earthquake 2. RISEING FEELING a strong growth of feeling or opinion that is evident but not always attributable to a specific source ○ <i>a groundswell of public opinion against the new measures</i></p> <p>ground water <i>n.</i> water held underground in soil or permeable rock, often feeding springs and wells</p> <p>ground wave <i>n.</i> a radio wave transmitted directly from a transmitter to a receiver, without reflection from the ionosphere</p> <p>groundwork /grównd wurk/ <i>n.</i> basic preparatory tasks that form a foundation for sth else</p> <p>ground zero <i>n.</i> the point on the surface of land or water that is precisely the site of detonation of a nuclear weapon, or the point immediately above or below it</p> <p>group /groop/ <i>n.</i> 1. SET OF PEOPLE OR THINGS a number of people or things considered together or regarded</p>	<p>ground substance <i>n.</i> the solid, semisolid, or liquid material that exists between the cells in connective tissue, cartilage, or bone</p> <p>groundswell /grównd swel/ <i>n.</i> 1 a deep wide up-and-down movement of the sea, often caused by a far-off storm or an earthquake 2 a strong growth of feeling or opinion that is evident but not always attributable to a specific source ○ <i>a groundswell of public opinion against the new measures</i></p> <p>ground water <i>n.</i> water held underground in soil or permeable rock, often feeding springs and wells</p> <p>ground wave <i>n.</i> a radio wave transmitted directly from a transmitter to a receiver, without reflection from the ionosphere</p> <p>groundwork /grównd wurk/ <i>n.</i> basic preparatory tasks that form a foundation for something else</p> <p>ground zero <i>n.</i> 1 POINT OF NUCLEAR EXPLOSION the point on the surface of land or water that is precisely the site of detonation of a nuclear weapon or the point immediately above or below it 2 the focal point or centre of activities for a particular event ○ <i>The war-torn country has been ground zero for an international terrorist network.</i> 3 BASIC LEVEL the most basic level or starting point for an activity ○ <i>learning programming from ground zero</i></p> <p>group /groop/ <i>n.</i> 1 SET OF PEOPLE OR THINGS a number of people or things considered together or regarded as belonging</p>
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Above – “Encarta” dictionary by the Microsoft – the 1999 and the 2001 editions.

<p>known, ground tackle tackle for securing a vessel at anchor. — adj ground-to-air (of a missile) aimed and fired from the ground at a target in the air. — ground water water naturally in the subsoil or occupying space in rocks; ground work that which forms the ground or foundation of anything; the basis; essential preparatory work; the first principle; the ground of painting (<i>art</i>); ground zero the point on the ground directly under the explosion of a nuclear weapon in the air. — break ground to begin working untouched ground; to take the first step in any project; break new (or fresh) ground to be innovative; cover a lot of ground to make good progress; cover the ground to treat a topic, etc adequately; cut or take the ground from under someone or from under someone's feet to anticipate someone's arguments or actions and destroy their force; down to the ground see under down; fall to the ground to come to nothing; forbidden ground an unmentionable topic; gain ground to advance; to become more widely influential; to spread; give ground to fall back, retreat (<i>lit</i> and <i>fig</i>); hold or stand one's ground to stand firm; home ground familiar territory; into the ground to the point of exhaustion; (let in) on the ground floor (to admit) on the same terms as the original promoters, or at the start (of a business venture, etc); lose ground to fall back; to decline in influence, etc; off the ground started, under way; on firm (or shaky) ground in a strong (or weak) position; on one's own (or home) ground in circumstances with which one is familiar; prepare the ground to ease the way for, facilitate the</p>	<p>a target in the air. ground water <i>n.</i> water naturally in the subsoil or occupying space in rocks. ground wave <i>n.</i> a radio wave which passes directly between a transmitting antenna and a receiving antenna. ground work <i>n.</i> that which forms the ground or foundation of anything; the basis; essential preparatory work; the first principle; the ground of painting (<i>art</i>). ground zero <i>n.</i> the point on the ground directly under the explosion of a nuclear weapon in the air; a completely new beginning (<i>fig</i>). ■ break ground to begin working untouched ground; to take the first step in any project. break new (or fresh) ground to be innovative. cover a lot of ground to make good progress. cover the ground to treat a topic, etc adequately. cut or take the ground from under someone or from under someone's feet to anticipate someone's arguments or actions and destroy their force. down to the ground see under down. fall to the ground to come to nothing. forbidden ground an unmentionable topic. gain ground to advance; to become more widely influential; to spread. give ground to fall back, retreat (<i>lit</i> and <i>fig</i>). go to ground (of an animal) to enter its burrow, hole, etc; to go into hiding. hold or stand one's ground to stand firm. home ground familiar territory. into the ground to the point of exhaustion. (let in) on the ground floor (to admit) on the same terms as the original promoters, or at the start (of a business venture, etc). lose ground to fall back; to decline in influence, etc. off the ground started, under way. on firm (or shaky) ground in a strong (or weak) position. on one's own (or home) ground in circumstances with which one is familiar. on the ground in the world of practical reality. prepare the ground to ease the way for, facilitate the progress of, something (with <i>for</i>). run to ground to hunt out, track down. shift one's ground to change one's standpoint in a situation or argument.</p> <p>ground², grounden see grind¹</p> <p>groundsel¹ /grówn(d)'sl/ <i>n.</i> a very common yellow-flowered</p>
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Above – The Chambers Dictionary – the 1998 (reprinted in 2001) and the 2003 editions.

ground staff /'graʊnd stɑːf/ *noun* mechanics on an airfield responsible for the maintenance of aircraft; non-flying personnel on an airfield.
ground state /'graʊnd steɪt/ *noun* the lowest and most stable energy state of a particle, nucleus, atom, or molecule.
ground station /'graʊnd steɪʃən/ *noun* → **earth station**.
ground stroke /'graʊnd stroʊk/ *noun* a tennis stroke played close to the ground immediately after the ball has bounced. Also, **ground shot**.
groundswell /'graʊndswel/ *noun* 1. a broad, deep swell or rolling of the sea, due to a distant storm or gale. 2. a strong movement of public opinion: **the groundswell of public concern about petrol prices.* —ADVERTISER, 1986.
ground water /'graʊnd wɔːtə/ *noun* the water beneath the surface of the ground, consisting largely of surface water that has seeped down.
ground wave /'graʊnd weɪv/ *noun* that portion of a transmitted radio wave that travels near the surface of the earth.
groundwork /'graʊndwɜːk/ *noun* the foundation, base, or basis of anything.
ground zero /'graʊnd ˈziːroʊ/ *noun* the point on the surface of the earth directly below the point at which a nuclear weapon explodes, or the centre of the crater if the weapon is exploded on the ground. Also, **surface zero**.
group /gruːp/ *noun* 1. any assemblage of persons or things; cluster; aggregation. 2. a number of persons or things ranged or considered together as being related in some way. 3. *Ethnology* a classification more limited than a branch. 4. a number of businesses, companies, etc., administratively and financially connected. 5. *Chemistry* a. number of atoms in a molecule connected or arranged together in a particular manner; a radical: *the hydroxyl group, —OH.* b. a vertical column of the periodic table containing elements with similar properties. 6. *Linguistics* a. a subdivision of a family, usually the greatest. b. any grouping of languages, whether geographically, on the basis of relationship, or otherwise. 7. *Functional grammar* a word or set of words that constitute a syntactic unit in a clause, such as the participant (**nominal group**) or the process (**verbal group**). 8. *Geology* a division of stratified rocks comprising two or more formations. 9. *Mil-*

ground wave /'graʊnd weɪv/ *noun* that portion of a transmitted radio wave that travels near the surface of the earth.
groundwork /'graʊndwɜːk/ *noun* the foundation, base, or basis of anything.
ground zero /'graʊnd ˈziːroʊ/ *noun* 1. Also, **surface zero**, the point on the surface of the earth directly below the point at which a nuclear weapon explodes, or the centre of the crater if the weapon is exploded on the ground. 2. the target of a missile, bomb, etc. 3. a starting point or base: *when I began learning Italian again, I had to return to ground zero.*
Ground Zero /'graʊnd ˈziːroʊ/ *noun* the area of New York City, USA, destroyed by the terrorist attack on the World Trade Centre on 11 September 2001.
group /gruːp/ *noun* 1. any assemblage of persons or things; cluster; aggregation. 2. a number of persons or things ranged or considered together as being related in some way. 3. *Ethnology* a classification more limited than a branch. 4. a number of businesses, companies, etc., administratively and financially connected. 5. *Chemistry* a. number of atoms in a molecule connected or arranged together in a particular manner; a radical: *the hydroxyl group, —OH.* b. a vertical column of the periodic table containing elements with similar properties. 6. *Linguistics* a. a subdivision of a family, usually the greatest. b. any grouping of languages, whether

i=peat i=pit e=pet æ=pat a=part o=pot

Above – The Macquarie Dictionary (of the Australian English) – the 2001 and the 2005 editions.

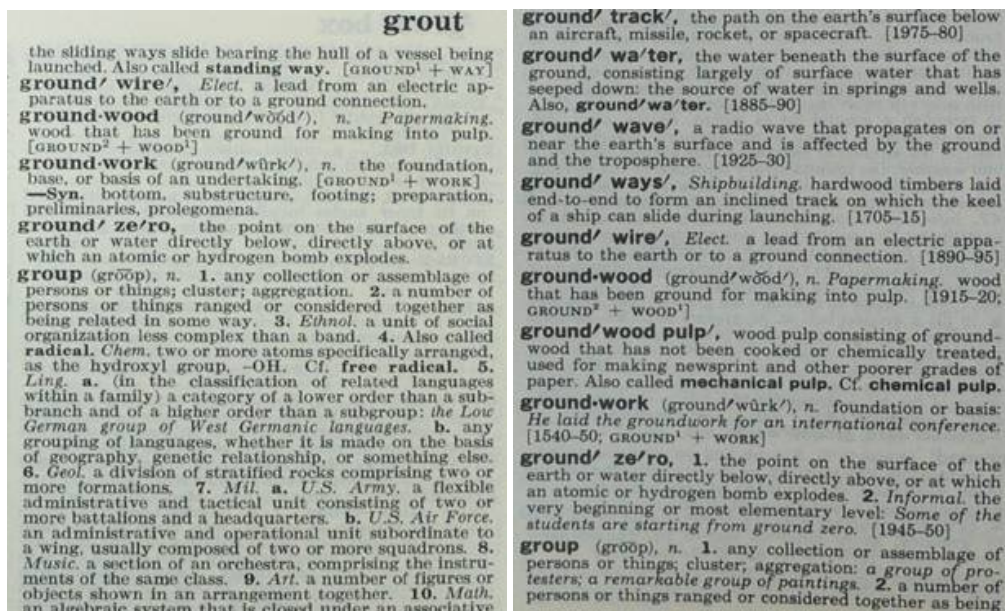
ground zero /'graʊnd ˈziːroʊ/ *noun* point on the surface of land or water that is at or directly above or below the center of the explosion of a nuclear bomb.
group (gruːp) *n.* 1. number of persons, figures, or things that form or are regarded as forming a unit: *a group of houses, a group of saints in a painting.* 2. number of persons or things classed together because of similarities: *a peer group, an ethnic group.* 3. administrative and tactical military unit consisting of two or more battalions or squadrons. 4. number of chemical elements having similar properties and arranged in a vertical column on the periodic table. 5. configuration of atoms attached to different molecules, giving similar properties to a family of compounds. The amino group symbol is NH₂. —*v.t.* to arrange or place in a group: *The chaplain grouped the younger children together.* —*v.i.* to form or belong to a group: *The skiers grouped around the fire.*
[*French* *groupe* assemblage, unit, cluster, from Italian *gruppo* assemblage, earlier, knot; of Germanic origin.] —*Syn.* *n.* 1. see *company*.
group-er (gruːpər) *pl.* -ers or -er, *n.* any of a number of spiny-rayed saltwater fish, family Serranidae, including many food fish found in warm waters. They have huge mouths and sharp teeth, and some may weigh as much as 1000 pounds. [*Portuguese* *garoupa*; probably of native South American origin.]
group-ing (gruːpɪŋ) *n.* 1. act of placing in a group: *The grouping of slow readers was a help to the teacher.* 2. set of things arranged in a group: *There was an attractive grouping of prints on one wall.*
group therapy. form of psychotherapy in which a group of patients, usually under the supervision of a therapist, attempt to understand and deal with their emotional problems, esp. through discussion.
grouse (gruːs) *pl.* grouse or grouse-es, *n.* any of a group of fowl-like game birds, family Tetraonidae, including the red grouse.



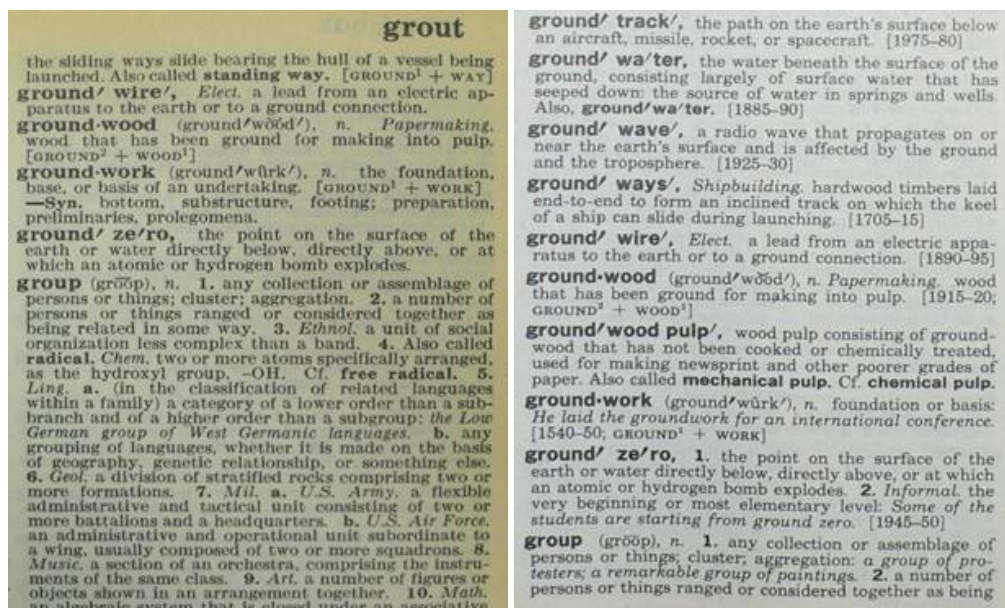
Grouper

ground zero 316
ground zero *noun* [u] 1 a place where a lot of people have been killed, or a lot of damage has been done, especially because of a nuclear explosion 2 a place where changes are happening quickly or violently
group¹ /gruːp/ *noun* [C] ★★★
1 several people or things that are together or that are related to each other in some way: *Why don't you join the local drama group?* ♦ *Firms should employ more people in the over-55 age group.* ♦ *a group decision/activity* (=involving all the people in a group) ♦ *There was a group of girls following him.*
2 a small set of musicians who play POP MUSIC = **BAND**: *members of a pop group*
In British English, **group** can be used with a singular or plural verb. You can say *The local drama group meets every week.* or *The local drama group meet every week.*
group² /gruːp/ *verb* [T] to put people or things into groups: *The students are grouped according to ability.* ♦ *The new offices will be grouped around a central garden.*
groupie /gruːpi/ *noun* [C] informal someone

Above – The Macmillan Dictionary of 1987 and the Macmillan Essential Dictionary of Learners of English of 2003 (the second dictionary of 2003 is much smaller in grade and contains lesser words and definitions than the first one – of 1987; nonetheless, “ground zero” has a much “broader” definition in the second one dictionary).



Above – Random House Webster's Unabridged Dictionary of 1983 and the Random House Webster's Unabridged Dictionary of the infamous "September 11, 2001 edition" (the ISBN for the second dictionary - 0-375-42566-7 – was indeed reserved on the very day – the eleventh day of September, 2001 – and thus the date of 9/11 became is the official date of the publication of that infamous dictionary...)



Above – Webster's Encyclopedic Unabridged Dictionary of the English Language of 1994 edition and Webster's Encyclopedic Unabridged Dictionary of the English Language, New Deluxe Edition of 2001 (the Webster's Encyclopedic Dictionary of the English Language is a carbon-copy of the Random House Webster's Unabridged Dictionary – that is why the two sets of photos above look identical).

ground state or **level** *n* the lowest energy state of an atom, molecule, particle, etc. Compare **excited** (sense 4).

ground stroke *n* **Tennis**, any return made to a ball that has touched the ground, as opposed to a volley.

groundswell ('graund,swel) *n* 1 a considerable swell of the sea, often caused by a distant storm or earthquake or by the passage of waves into shallow water. 2 a strong public feeling or opinion that is detectable even though not openly expressed: a groundswell of discontent.

ground water *n* underground water that has come mainly from the seepage of surface water and is held in the soil and in pervious rocks.

ground wave or **ray** *n* a radio wave that travels directly between a transmitting and a receiving aerial. Compare **sky wave**.

groundwork ('graund,wɜ:k) *n* 1 preliminary work as a foundation or basis. 2 the ground or background of a painting, etc.

ground zero *n* a point on the surface of land or water at or directly above or below the centre of a nuclear explosion.

group (gru:p) *n* 1 a number of persons or things considered as a collective unit. 2a a number of persons bound together by common social standards, interests, etc. 2b (as modifier): group behaviour. 3 a small band of players or singers, esp. of pop music. 4 a number of animals or plants considered as a unit because of common characteristics, habits, etc. 5 *Grammar*, another word, esp. in systemic grammar, for **phrase** (sense 1). 6 an association of companies under a single ownership and control, consisting of a holding company, subsidiary companies, and sometimes associated companies. 7 two or more figures or objects forming a design or unit in a design, in a painting or sculpture. 8 a military formation comprising complementary arms and services, usually for a purpose: a **brigade group**. 9 an air force organization of higher level than a squadron. 10 Also called: **radical**. *Chem.* two or more atoms that are bound together in a molecule and behave as a single unit: a **methyl group** $-CH_3$. Compare **free radical**. 11 a vertical column of elements in the periodic table that all have similar electronic structures, properties, and valencies. Compare **period** (sense 8). 12 *Geology*, any stratigraphical unit, esp. the unit for two or more formations. 13 *Maths*, a set under an operation involving any two members of the set such that the set is closed, associative, and contains both an identity and the inverse of each member. 14 See **blood group**. + *vb* 15 to arrange or place (things, people, etc.) in or into a group or (of things, etc.) to form into a group. [C17: from French *groupe*, of Germanic origin; compare Italian *gruppo*; see **caot**]

group captain *n* an officer holding commissioned rank senior to a wing commander but junior to an air commodore in the British RAF and certain other air

groundswell ('graund,swel) *NOUN* 1 a considerable swell of the sea, often caused by a distant storm or earthquake or by the passage of waves into shallow water. 2 a strong public feeling or opinion that is detectable even though not openly expressed: a groundswell of discontent.

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groundwork ('graund,wɜ:k) *NOUN* 1 preliminary work as a foundation or basis. 2 the ground or background of a painting, etc.

ground zero *NOUN* 1 a point on the surface of land or water at or directly above or below the centre of a nuclear explosion. 2 a scene of great devastation. 3 (sometimes capitals) the name given to the devastated site of the collapsed World Trade Center towers in New York after September 11 2001.

group (gru:p) *NOUN* 1 a number of persons or things considered as a collective unit. 2 a a number of persons bound together by common social standards, interests, etc. b (as modifier): group

Above – the Collins English Dictionary– the 2001 and the 2003 editions.

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ground stroke *noun* a stroke made (e.g. in tennis) by hitting a ball that has rebounded from the ground: compare **volley**¹.

groundswell /'graundswel/ *noun* 1 a sea swell caused by an often distant gale or ground tremor. 2 a rapid and spontaneous build-up of public opinion.

groundwater *noun* underground water that supplies wells and springs, esp water that has saturated surface soil and rocks.

groundwork *noun* work done to provide a foundation or basis.

ground zero *noun* the point on the surface of the earth at or directly below or above the centre of a nuclear explosion.

group¹ /'gru:hp/ *noun* 1 (treated as *sing.* or *pl*) a number of people or things gathered together or regarded as forming a single unit. 2 a small band of musicians, esp playing pop music. 3 an operational and administrative unit in an air force consisting of two or more squadrons. 4 two or more figures or objects forming a distinct unit in a painting or other artistic work. 5 a number of business companies under the ultimate ownership of a single individual or association. 6a an assemblage of atoms forming part of a molecule; a radical: a **methyl group**. b all the chemical elements forming one of the vertical columns of the periodic table. 7 a mathematical set that is closed under a binary associative operation, has an identity element, and has an inverse for every element. [French *groupe* from Italian *gruppo*, of Germanic origin]

group² *verb trans* 1 to combine (people or things) in a group. 2 (often + *under/with*) to assign (somebody or something) to a group; to classify (them). > *verb intrans* to form or belong to a group. >> **groupable** *adj.*

group captain *noun* in the RAF and some other air forces, an officer who is senior to a wing commander and junior to an air commodore.

groundswell /'graundswel/ *noun* 1 a sea swell caused by an often distant gale or ground tremor. 2 a rapid and spontaneous build-up of public opinion.

groundwater *noun* underground water that supplies wells and springs, esp water that has saturated surface soil and rocks.

groundwork *noun* work done to provide a foundation or basis.

ground zero *noun* 1 the point on the surface of the earth at or directly below or above the centre of a nuclear explosion. 2 (often **Ground Zero**) chiefly *N.Amer* the site of a destroyed building, esp the former World Trade Centre in New York, destroyed in a terrorist attack on 11 September 2001.

group¹ /'gru:hp/ *noun* 1 (treated as *sing.* or *pl*) a number of people or things gathered together or regarded as forming a single unit. 2 a small band of musicians, esp playing pop music. 3 an operational and administrative unit in an air force consisting of two or more squadrons. 4 two or more figures or objects forming a distinct unit in a painting or other artistic work. 5 a number of business companies under the ultimate ownership of a single individual or association. 6a an assemblage of atoms forming part of a molecule; a radical: a **methyl group**. b all the chemical elements forming one of the vertical columns of the periodic table. 7 a mathematical set that is closed under a binary associative operation, has an identity element, and has an inverse for every element. [French *groupe* from Italian *gruppo*, of Germanic origin]

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group captain *noun* in the RAF and some other air forces, an officer who is senior to a wing commander and junior to an air commodore.

group dynamics *pl noun* the relationships that exist or establish themselves between individuals in a group, or the processes

Above – The New Penguin English Dictionary – the 2000 and the 2003 editions.

ground-water, ground water /ˈgraʊnd.wɔːtə/ *n.* [U] water that is under the ground that supplies water to wells, lakes, streams etc.

ground-work /ˈgraʊndwɜːk/ *n.* [U] important work that has to take place before another activity, plan etc. can be successful: *The groundwork for next year's conference has already begun.*

ground zero /ˌɡraʊnd ˈzeɪrə/ *n.* [U] the place where a nuclear bomb explodes, where the most severe damage happens

group¹ /ɡrʊp/ *n.* [C] **1** several people or things that are all together in the same place: *We got all the family together for a group photo.* | [+ of] *a group of tall trees* | *Get into groups of four.* **2** several people or things that are related to each other in some way: [+ of] *a group of investors* | *ethnic/religious/environmental etc. group* (=people with the same races, religion, interests etc.) **3** a number of musicians or singers who perform together, usually playing popular music: *a rock group* **4** several companies that all have the same owner: *The Pearson Group owns a diverse array of companies.* —see also AGE GROUP, INTEREST GROUP, PLAY GROUP

group² *v.* **1** [I,T] to come together to make a group, or to arrange people or things in a group: [+ on/in/together etc.] *Reporters were grouped on the steps below him.* | *The tourists grouped themselves around the statue.* **2** [T always + adv./prep.] to divide people or things into groups or types according to a system: *The plates were grouped according to color and size.*

group dy-nam-ics /ˌɡruːp ˈdaɪnəmɪks/ *n.* (singular,U) the way in which the members of a group behave toward and

ground-water, ground water /ˈgraʊnd.wɔːtə/ *n.* [U] water that is under the ground that supplies water to wells, lakes, streams etc.

ground-work /ˈgraʊndwɜːk/ *n.* [U] important work that has to take place before another activity, plan etc. can be successful: *The groundwork for next year's conference has already begun.*

ground zero *n.* [U] **1** the place where a large bomb explodes, where the most severe damage happens **2** **Ground Zero** the place in New York City where the World Trade Center buildings were destroyed by terrorists on September 11, 2001

group¹ /ɡrʊp/ *n.* [C] **1** several people or things that are all together in the same place: [+ of] *a group of tall trees* | *groups of three/six/ten etc.* *Get into groups of four.* | *Men stood in groups on the sidewalk.* | *a group photo* | *a group discussion*

THESAURUS

Group of people
crowd a large group of people in one place: *She had gotten separated from her little boy in the crowd.*
team a group of people who work together: *a team of doctors* | *the basketball team*
crew a group of people who all work together, especially on a ship or airplane: *the flight crew*
bunch INFORMAL a group of people: *They're a nice bunch of kids.*
gang a group of young people, especially a group that often causes trouble and fights: *The school had a gang of friends.*

Above – Longman Advanced American Dictionary – the 2000 and the 2007 editions.

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2, at the level of the ground. —*v.t.* **1**, set on the ground. **2**, (*Aviation*) forbid to fly. **3**, connect electrical current with the earth, etc. **4**, run (a ship) aground. **5**, teach fundamentals to. **6**, (*Informal*) forbid to participate in social activities. **7**, pret. & p.p. of *grind*. —*v.i.* come to rest on the ground. —**cover ground**, make progress. —**give ground**, yield; retreat. —**ground zero**, the point on the earth's surface on or above which a nuclear explosion takes place.

ground'er (ɡroʊn'dər) *n.* (*Baseball*) a ball hit along the ground.

ground'hog *n.* woodchuck. —**groundhog day**, Candlemas, Feb. 2.

ground'less (-ləs) *adj.* with no adequate reason.

ground'ling (ɡroʊnd'liŋ) *n.* **1**, an animal or plant bound to or living close to the ground. **2**, a materialistic person.

327 **grounded**

waste matter in ground form, as *coffee grounds*. **7**, a conveyance of electric current to the earth or a conductor of equivalent effect. —*adj.* **1**, prepared by grinding. **2**, at the level of the ground. —*v.t.* **1**, set on the ground. **2**, (*Aviation*) forbid to fly. **3**, connect electrical current with the earth, etc. **4**, run (a ship) aground. **5**, teach fundamentals to. **6**, (*Informal*) forbid to participate in social activities. **7**, pret. & p.p. of *grind*. —*v.i.* come to rest on the ground. —**cover ground**, make progress. —**give ground**, yield; retreat. —**ground floor**, first level; hence, beginning level of a job, etc. —**ground rule**, basic principle. —**ground zero**, **1**, the point on the earth's surface on or above which a nuclear explosion takes place. **2**, the site of the 9/11 attacks in New York City. **3**, the focal point of any major event.

ground'ed *adj.* **1**, sensible; balanced. **2**, of an aviator, prohibited from flying. **3**

Above – The New American Webster Handy College Dictionary – the 1995 and the 2006 editions.

ground rule ▶ *n.* 1. *Sports* A rule governing the playing of a game on a particular field, course, or court. 2. A basic rule.

ground squirrel ▶ *n.* Any of several burrowing or terrestrial squirrels resembling the chipmunk.

ground•swell (ground/'swēl') ▶ *n.* 1. A broad gathering of force, as of public opinion. 2. A deep swell of the ocean.

ground water also **ground•wa•ter** (ground/'wō'tər, -wōt'ər) ▶ *n.* Subterranean water that supplies wells and springs.

ground•work (ground/'wŭrk') ▶ *n.* A foundation; basis.

ground zero ▶ *n.* The point of detonation of a nuclear weapon.

group (grōp) ▶ *n.* A number of persons or objects gathered, located, or classified together. See Usage Note at **collective noun**. ▶ *v.* To place in or form a group. [< Ital. *gruppo*, prob. of Gmc. orig.]

grou•per (grōb'pər) ▶ *n., pl. -er or -pers.* Any of various large food and game fishes which inhabit warm seas. [Port. *garupa*.]

group•ie (grōb'pē) ▶ *n. Slang* A fan, esp. a young woman, who follows a rock group

ground rule ▶ *n.* 1. *Sports* A rule governing the playing of a game on a particular field, course, or court. 2. A basic rule.

ground squirrel ▶ *n.* Any of several terrestrial squirrels usu. living in burrows and hibernating during the winter.

ground•swell (ground/'swēl') ▶ *n.* 1. A broad gathering of force, as of public opinion. 2. A deep swell of the ocean.

ground•wa•ter also **ground water** (ground/'wō'tər, -wōt'ər) ▶ *n.* Subterranean water that supplies wells and springs.

ground•work (ground/'wŭrk') ▶ *n.* A foundation; basis.

ground zero ▶ *n.* 1. The site of a violently destructive event, such as the detonation of a nuclear weapon. 2. The center of rapid or intense development or change.

group (grōp) ▶ *n.* A number of persons or objects gathered, located, or classified together. See Usage Note at **collective noun**. ▶ *v.* To place in or form a group. [< Ital. *gruppo*, prob. of Gmc. orig.]

grou•per (grōb'pər) ▶ *n., pl. -er or -pers.* Any of various large food and game fishes which

Above – The American Heritage Desk Dictionary of 2001 and 2013 editions.

ground•ward \ˈgraundwə(r)d, rapid-nw- also ground-wards \-dz\ *adv.* toward the ground; DOWN

groundwater \ˈgrəʊndwɔːtə\ *n.* water within the earth that supplies wells and springs; *specif.* water in the zone of saturation where all openings in rocks and soil are filled, the upper surface of which forms the water table

groundwater level *n.* 1: WATER TABLE 2: the depth or elevation above or below sea level at which the surface of groundwater stands

ground wave *n.* a radio wave that is propagated along the surface of the earth

ground ways *n. pl.* heavy timbers laid on the ground on each side of the keel of a ship under construction that form a track for launching and support the sliding ways that carry the ship into the water — called also *standing ways*

ground wire *n.* 1: a wire making a ground connection 2: the part of a circuit formed by the earth

groundwood \ˈgrəʊndwəʊd\ *n.* wood ground into small particles by revolving grindstones and used in paper pulp (< pulp > (< paper>); also: the pulp made from such wood

groundwork \ˈgrəʊndwɜːk\ *n.* something that forms a foundation or support; BASIS, GROUND

ground worm *n.* 1: EARTHWORM 2: WORM SNAKE

ground wren *n.* 1: WREN-TIT 2: HEATH-WREN

groundy \ˈgrəʊndi\ *adj.* -ER/-EST of coffee: having an earthy taste or aroma

ground yew *n.* 1: CROWBERRY 1a 2: a ground hemlock (*Taxus canadensis*)

ground zero *n.* the point on the surface of the ground or water directly below which, above which, or at which the explosion of an atom bomb occurs

group \ˈgruːp\ *n.* -s [Fr. *groupe*, fr. It. *gruppo* group, knot, of Gmc. origin; akin to OHG *kropf* *craw* — more at *CROP*]
1: two or more figures (as in sculpture or painting) forming a distinctive unit complete in itself or forming part of a larger composition (the bronze ~ represents a mortally wounded southern soldier supported by Fame — *Amer. Guide Series: N.C.*) (a foreground ~ of satyrs and nymphs) 2 a: a relatively small number of individuals assembled or standing together (a ~ of indifferent bystanders looked on) (< ~s of prisoners marching to their destination > — compare *CROWD*)

ground effect *n.* a down force exerted on a racing car by special design features (as winglike airfoils) that enables it to achieve higher speeds through turns before starting to skid — often used in pl.

ground-effect machine \ˈgrəʊnd-ɛf-əkt\ *n.* an air-cushion vehicle for traveling over land or water

groundout \ˈgrəʊnd-aʊt\ *n.* -s [fr. the phrase *ground out*]: a play in baseball in which a batter is put out after hitting a grounder to an infielder

ground zero *n.* 1: the center or origin of rapid, intense, or violent activity or change 2: the very beginning: SQUARE ONE *herein*

group *n.* a mathematical set that is closed under a binary associative operation (as multiplication or addition) and that has an identity element and an inverse for every element

grouper *n.* one of a group of unrelated people who share a rented house (as at the seashore)

group grope *n., slang*: a sex orgy

group•ie \ˈgruːpi\ *n.* -s [!group + -ie] 1: a fan of a rock group, esp.: one who follows the group on tour 2: a fan of a celebrity who attends as many of his or her appearances as possible 3: an enthusiastic follower or supporter (a political ~) (a fashion ~)

group theory *n.* a branch of mathematics concerned with finding all mathematical groups and determining their properties — **group theorist** *n.*

groupthink \ˈgruːpθɪŋk\ *n.* [!group + think (as in *doublethink*)] : conformity to group values and ethics (< ~ exists that does not make many allowances for individualism — Bruce Newman)

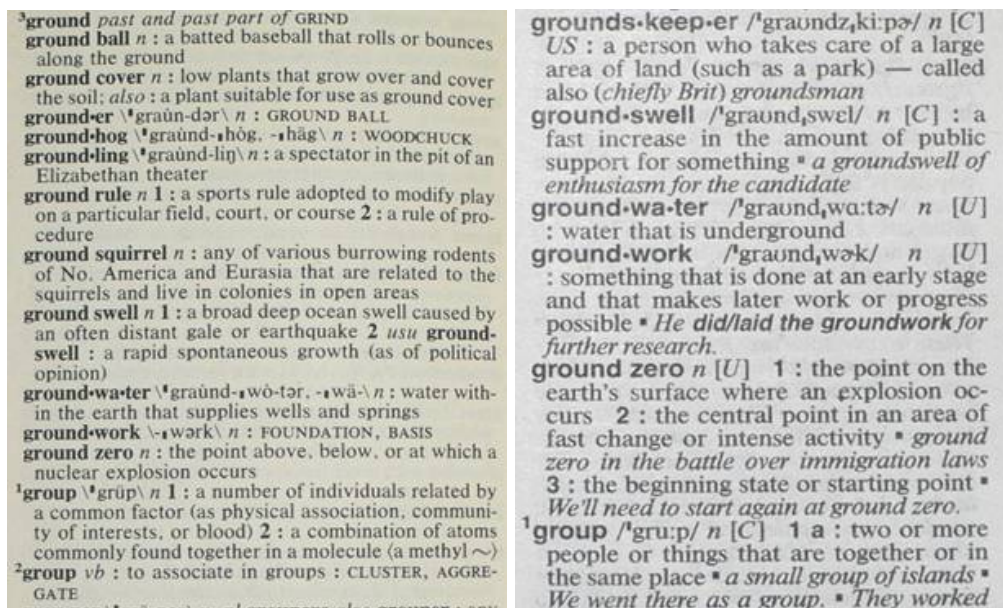
growth *n.* anticipated progressive growth in capital value and income (some investors prefer ~ to immediate income)

growth company *n.* a company that grows at a greater rate than the economy as a whole

growth plate *n.* the region in a long bone between the epiphysis and diaphysis where growth in length occurs

grunge \ˈgrʌŋd\ *n.* -s [back-formation fr. *grungy* (*herein*)]

Above – Merriam-Webster's biggest dictionary - Third New International Dictionary of the English Language Unabridged of 1986 and 2002 editions.



Above – Merriam-Webster's Dictionary of 1999 and Merriam-Webster's Learner's Dictionary of 2010 (the first dictionary has never been re-issued, while the second one was not even published before the 9/11 events, however, these two dictionaries are approximately equal in their status and are equal when it comes to the number of pages and numbers of words and definitions).

Don't be surprised that almost every new English dictionary printed after 9/11 has begun to describe "ground zero" as having more than one sense. Now, at least 3-5 new meanings have been ascribed to this particular term, ranging from some supposed "great devastation", "great disorder" and "busy activities" to some supposed "basic level" and "starting point" definitions. Some preferred another approach: editors of the new Longman Dictionary of Contemporary English, for example, defined "ground zero" as a "place where a bomb explodes" without mentioning anything at all that such "bomb" is supposed to be nuclear or thermo-nuclear in nature. In addition to all of this, these days almost every dictionary – whether big or small – has begun to include this (to be exact "these") definitions.

The term "ground zero", obviously due to being such a specialized term prior to 9/11, existed only in really big English dictionaries – such as Webster's Unabridged, full Collins, full American Heritage, and other similar large dictionaries (and even in those it contained only the single correct meaning of the term). It didn't exist in smaller dictionaries – such as those intended for students and for advanced learners (with the only exception being the Longman Advanced American Dictionary – which is mentioned above). For example, "ground zero" was absent in Oxford Advanced Learner's Dictionaries in their 4th, 5th and 6th Editions published before September 11, 2001. Even Oxford's 4th special "Encyclopedic" version (which was about 50% larger compared to the regular one) did not contain any reference to the term "ground zero". Only Oxford's Advanced Learner's Dictionary of 7th Edition first published in 2005 began describing this term at last.

Post-9/11 editions of the Macmillan English Dictionary for Advanced Learners and the Longman Dictionary of Contemporary English, all kinds of new Merriam-Webster's Dictionaries, the majority of new American Heritage Dictionaries, the new Collins English, the Microsoft Encarta Dictionary and many other new dictionaries and encyclopedias after the September 11 affair have all begun to include "ground zero" and to define it in such a sense that it might supposedly have more than one meaning, all trying their best to divert attention away from the former nuclear (and only nuclear) nature of this term. By the way, editors of the last mentioned above Cambridge Advanced Learner's Dictionary should be praised for not having deceived their readers: they were brave enough not to include any misleading definitions of the term "ground zero" in their post-9/11 dictionary, which is in sharp contrast to every other dictionary that was edited at the behest of the 9/11 cover-up. It was reported there had even been attempts to prove that the WTC was already referred to as "ground zero" even before September 11, 2001. All these post-9/11 linguistic efforts in attempting to obscure the term "ground zero" are understandable indeed. That obviously revealing name, rashly awarded by Civil Defense specialists to the demolition grounds of the former New York World Trade Center, was obviously *too revealing* to just leave this particular term in future editions of dictionaries with only its former sense alone...

Nuclear demolition of the WTC.

The author of this article used to be a commissioned officer in the Soviet military unit 46179, otherwise known as the "Special Control Service of the 12th Chief Directorate of the Defense Ministry of the USSR". The 12th Chief Directorate itself was an organization responsible in the Soviet Union for the safe-keeping, the production control, the technical maintenance etc. of the entire nuclear arsenal of the state. The Special Control Service was responsible for detecting nuclear explosions and was responsible for the observance of all international treaties related to nuclear testing. It is especially important to note the existence of the so-called "Peaceful Nuclear Explosions Treaty" of 1976 between the USSR and the United States of America. In accordance with this Treaty, all parties were obliged to inform one another about all nuclear explosions intended for non-military purposes.

During my military service in the abovementioned organization at the end of the '80s, it came to my knowledge that there was a so-called "emergency nuclear demolition schema" built into the World Trade Center Twin Towers in New York. The actual nuclear demolition schema was based on huge thermo-nuclear charges (about 150 kilotons in TNT yield) which were positioned about 50 meters below the lowest underground foundations of each of the Towers. It was strange to me by then and, to be honest; it was hard to believe that US authorities would be crazy enough to demolish buildings in the middle of a populated city using underground nuclear explosions.

However, as I understood it correctly, nobody had ever actually planned to demolish the World Trade Center in such a way. It was merely a means to get around the bureaucracy: such a nuclear demolition schema had to be built into the Twin Towers not to get them demolished, **but to get permission to build them in the first place.** The problem was that the then building code of New York (as well as that of Chicago) didn't allow the Department of Buildings to issue permits to build a skyscraper unless its constructor could provide a satisfactory means by which he could demolish the building either in future, or in the case of emergency. Since the late '60s (when the Twin Towers were first proposed) this type of steel-framed buildings was a totally new concept and nobody knew how to deal with them in the sense of demolition. Given that traditional ("conventional") controlled demolition methods were applicable purely to older-style buildings, they had to come up with something new for the incredibly strong steel Twin Towers that would convince the Department of Buildings to issue permission for their actual construction. And the solution was indeed created: nuclear demolition.

A brief history of the atomic and nuclear demolition concept.

The initial idea of using nuclear devices to demolish various constructions was born almost immediately after the emergence of actual nuclear weapons in the beginning of the 50s. At first, nuclear munitions were not called "nuclear", but "atomic", so the concept of demolition using these munitions was accordingly called "atomic demolition". These terms managed to survive, and despite having renamed "atomic weapons" to "nuclear weapons", the term "atomic demolition" is still used to this day with respect to special engineering devices – such as SADM and MADM. The first term stands for "Special Atomic Demolition Munitions", the second term stands for "Medium Atomic Demolition Munitions", while many people mistakenly believe that SADM means "Small Atomic Demolition Munitions", rather than "Special".

In fact, it's not a mistake to call them "small" instead of "special" because SADM are indeed "small" - their nuclear explosive yields usually don't exceed 1 kiloton in TNT equivalent. Considering that all modern SADM have variable yields which can be set to as low as 0.1 kiloton, and sometimes even set to as low as 0.01 kiloton (equivalents to 100 and 10 metric tons of TNT respectively), they deserve to be called "small" munitions. Other popular names for these Small Atomic Demolition Munitions are "mini-nuke" and "suitcase nuke", though the second one is probably not logically correct. In reality, most SADM resemble big pots weighing between 50 to 70 kilograms that can be carried as back-packs - so it is very unlikely that they would fit into a suitcase. However, there are also modern "mini-nukes" which are made of Plutonium-239 rather than Uranium-235, and due to the much lower critical mass of Plutonium, their size can be significantly decreased - some of the newer Plutonium-based "mini-nukes" can indeed fit into even a case as small as a handbag. Medium Atomic Demolition Munitions (MADM) are bigger in both a) their size and b) their TNT yield. They can range up to 15 kilotons in TNT yield, weigh up to 200 kg and be as big as any large regular gas-cylinder you'd find in your home.

Either of the abovementioned atomic demolition munitions can be successfully used in demolishing large objects which otherwise could not be demolished by any reasonable amount of conventional explosives - especially in times of emergency, when there is neither the time nor the means to plan for their "regular" demolition using conventional means. For example, they can demolish bridges, dams, tunnels, reinforced underground structures, large reinforced buildings, etc., however, the efficiency factor of using such nuclear demolitions as SADM or MADM isn't quite that high. As it is publicly known, the main goal of the controlled demolition of buildings through implosion is not to actually eliminate the buildings by blowing them up and ejecting their debris everywhere, but to bring them down neatly while at the same time minimizing damage to surrounding buildings.

For precisely this reason, engineers who prepare controlled demolitions have to first figure out the exact points

within a building's bearing structure to cut and attach charges of conventional explosives to those spots - in order to break the bearing structures.

In almost every case, there is more than one spot to attach explosives since it is unlikely that any structure would have a single supporting girder or a single supporting column to cut; at best there would be at least several, if not many. In the case of atomic demolition, however, using the abovementioned atomic demolition munitions is quite different.

People who work in the planning of the usage of atomic munitions for emergency purposes require neither the time nor the training to make the precise calculations which are needed in conventional controlled demolition. What these people would have at the very most is a basic knowledge of field-engineering and a basic understanding of nuclear demolitions. Thus, atomic demolition munitions are not used to "neatly" bring down a structure, but rather as a means to bring down a structure by any means necessary and at any cost no matter what the toll is. This is why the explosive yield of the atomic munitions used to demolish such a structure in the case of emergency would be excessive. This is because the majority of the explosive energy from atomic munitions would be spent in vain. So, the majority of energy released by the nuclear explosion of an atomic demolition device would be spent on the well-known factors of an atomic blast: thermal radiation, air-blast wave, ionizing radiation, electro-magnetic pulse – all of which have nothing to do with the actual demolition task at hand and would not contribute much to the end goal of neatly demolishing the building. The destructive factors of an atomic explosion would greatly damage the surroundings - and this damage itself is rather extreme and definitely comes at a much higher toll than the actual cost of a demolition itself.

It is to be said then that nuclear demolition in the abovementioned sense would have a rather poor performance index when compared to carrying out a precisely-calculated conventional controlled demolition. This is due to the fact that the latter directs its almost entire explosive energy on breaking the bearing structures, rather than on creating an air-blast wave and thermal radiation.

Regardless, the use of an atomic demolition device alone is just far too costly. At the bare minimum, a Uranium-based "mini-nuke" costs a few million US dollars if not more and a Plutonium-based one costs much more than that. Apparently, a thousand tons of TNT would cost cheaper than 1 kiloton of atomic munitions. However, it is possible to demolish most buildings using 1000 tons of TNT while it is possible to demolish only a single building using a "mini-nuke" (but while damaging many other buildings in the surrounding area).

Considering all of this, it is to be concluded that it is not a viable option whatsoever to use atomic demolition munitions, whether small or medium, for the demolition of civil infrastructure in times of peace, especially when we have sufficient time on our hands to prepare for their demolition using professional conventional controlled demolition methods. And, in any case, a conventional controlled demolition is much cheaper than a nuclear demolition. Mini-nukes can only be used for a demolition job in the case of a real emergency.

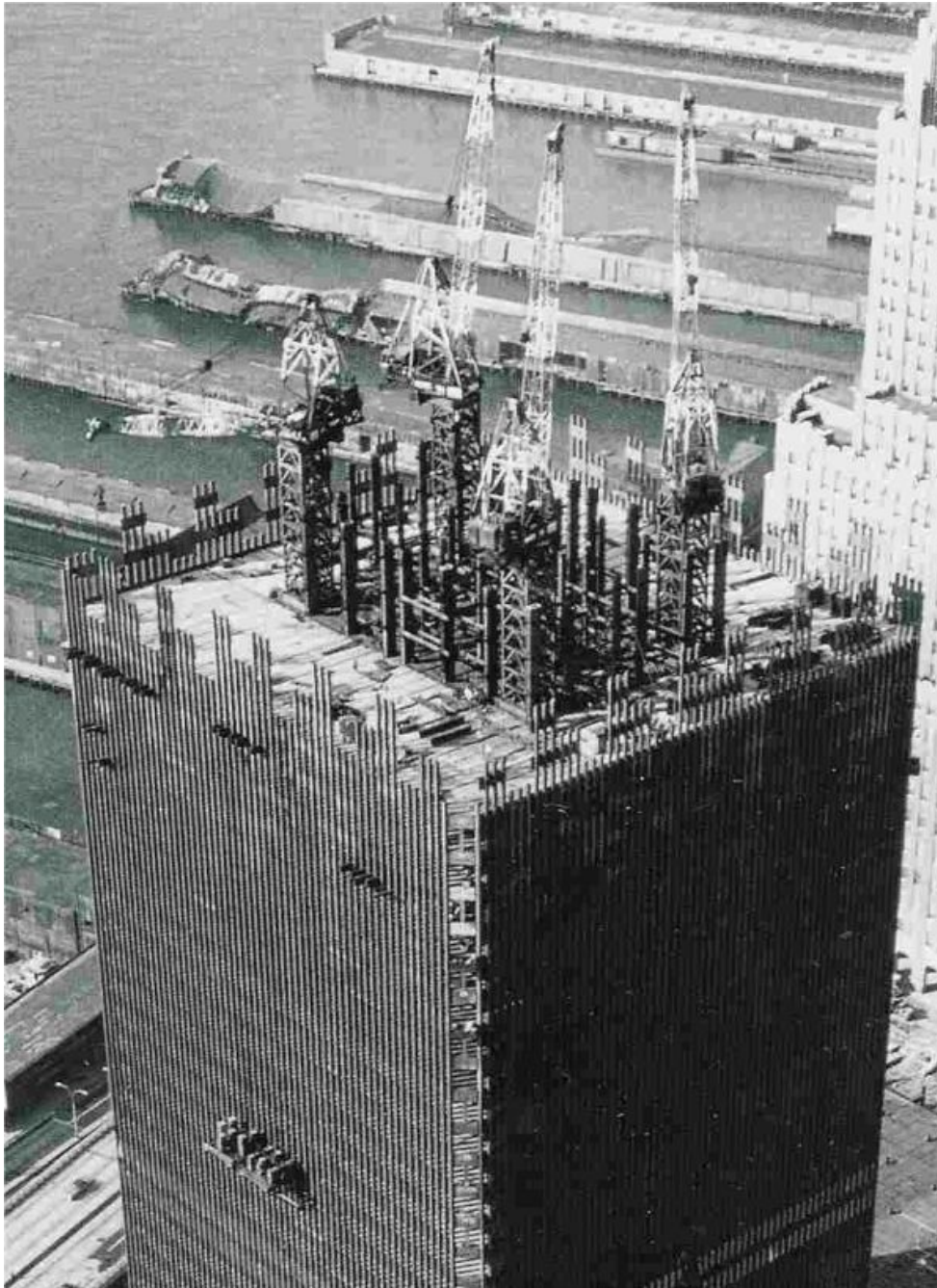
How then did it come to be that this old atomic demolition concept, despite being known to be too costly and having such a poor performance index when compared to conventional controlled demolition by implosion, came to be eventually revived and even implemented in the World Trade Center nuclear demolition schema?

It just so happens to be because a newer generation of buildings came into existence at the end of 60's, namely steel-framed buildings.

Despite the common misconception, no steel-framed skyscraper has ever been demolished by implosion anywhere in the world prior to the WTC towers. This is primarily due to the fact that most skyscrapers are newer buildings and the need to demolish them has yet to come. Even the tallest building ever demolished by implosion was only 47-stories high - it was the Singer Building in New York City which was built in 1908 and demolished in 1968 due to it being so obsolete. This building was much weaker in structure when compared to the incredibly strong hollow-tube type steel-frame skyscrapers which are built today. So, despite this common misconception, it is not possible to demolish a steel-frame building using any conventional controlled demolition (implosion) schema.

In older times, when buildings were brick-walled and concrete-panelled, their bearing structures used to be concrete supporting columns and concrete supporting girders. Sometimes these concrete bearing structures were reinforced by the insertion of metal bars and even sometimes just by concrete alone. In any case, it was always possible to calculate the right amount of conventional explosives that was needed to attach to these bearing structures and in the correct spots (or to be placed into holes drilled into the bearing structures) in order to break them all at once and cause the building to collapse into its own footprint. However, with modern steel-framed buildings this is simply no longer possible. Examples of modern steel-framed buildings include the former Twin Towers of the World Trade Center, World Trade Center building # 7 and the Sears Tower in Chicago.

Here is an example of the steel structure of the WTC Twin Towers:



There was no "bearing structure" in the older sense of the meaning - the entire Tower was essentially a "bearing structure" in of itself.

The steel-frame of the WTC consisted of exceptionally thick double-walled steel perimeter columns and core columns.

This co-called "tube-frame design" was a totally new approach which allowed open floor plans rather than columns distributed throughout the interior in order to support the loads like it had traditionally been implemented in older structures.

The Twin Towers featured load-bearing steel perimeter columns (square in cross-section) which were positioned one meter apart from each other on the Towers' facades which formed an exceptionally rigid structure that in turn supported virtually all lateral loads (such as wind loads) and even shared the gravity load with the core

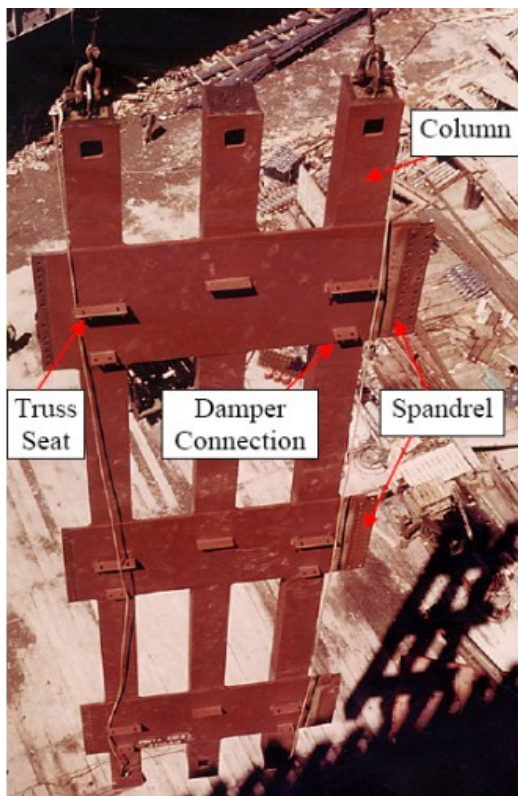
columns.

The perimeter structure contained 59 of such columns per side. The core structure of the Tower consisted of 47 rectangular steel columns that ran from the bedrock all the way up to the tops of the Towers.

In the following picture, you can see steel perimeter and core column remnants that remained at "Ground Zero":



Here is one more picture (from the NIST report) showing the Twin Tower perimeter columns during their construction:



Source: Unknown. Enhanced by NIST.

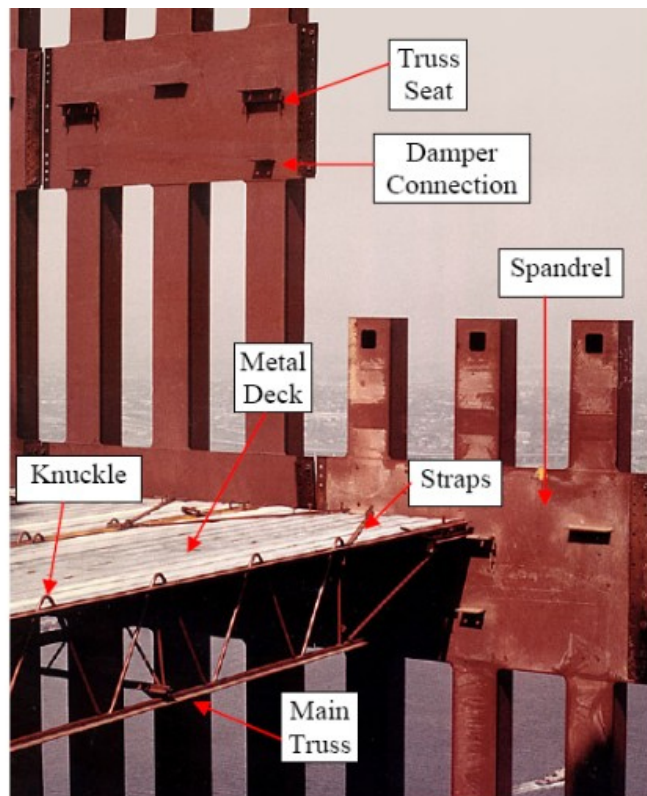


Figure 1–4. Perimeter column/spandrel assembly and floor structure.



Perimeter columns are being inspected at “ground zero”.

These steel columns were incredibly thick - each wall measuring 2.5 inches (6.35 cm), so the entire thickness of each column was 5 inches (12.7 cm). To imagine how thick this is, here is a good example to compare to: imagine the front armor of the best tank from the WWII period - the T-34 – whose steel was only 1.8 inches (4.5 cm) thick and was just single-walled. The T-34 tank and its armor are in the pictures below:





Yet there were practically no armor-piercing artillery shells available at the time capable of penetrating such front armor.

Of course, no explosives whatsoever could ever tear through the front armor of a tank (except for hollow-charge shells which would still not even be able to tear through the armor completely, but would merely just burn a narrow hole through the armor plate).

Considering that the Twin Towers' steel frames consisted of double-walled steel columns that were almost three times as thick as the front armor of a T-34 tank, it would not be possible to come up with a solution to break these columns simultaneously and do so in many spots simultaneously in order to achieve the "implosion" effect – which is, of course, the basic goal of controlled demolition.

It was, of course, technically possible to break some of these columns in certain spots, using exceptionally huge amounts of hollow-charges attached to each individual column, but even such an incredible amount of explosives wouldn't be enough to achieve the desired "implosion effect". The Towers were simply too high and too rigid - their steel cores would have been simultaneously broken in too many spots on every floor, which no one could afford, and even if they could, still, such a solution would not lead to the desired effect - there would not be any guarantee that such a high-rise structure would fall straight down into to its foot print. It would most likely just scatter its debris over the course of a quarter mile given its mere height alone. So, it was impossible to bring the WTC Towers down by any form of traditional controlled demolition.

The same thing could be said about WTC building # 7 and the Sears Tower in Chicago. Both of them were constructed using similarly thick double-walled steel frames which were impossible to break at once due to the same reasons described above.

However, in accordance with US laws governing the construction of skyscrapers, designers had to submit a satisfactory demolition schema before construction would be approved by the Department of Buildings. No one

would be allowed to build a skyscraper that could not be demolished in future.

This is the main reason for having a built-in nuclear demolition feature. Ironically, the nuclear demolition schema of a skyscraper is not actually meant to demolish the skyscraper, especially considering that no one has any practical experience in demolishing skyscrapers by such means - it is merely intended to convince the Department of Buildings to give permission to build the skyscraper.

It appears that all designers and proponents of such nuclear demolition schemas sincerely hope their ideas not be put to use during their life-time.

How does this work?

First off, such a modern nuclear demolition has nothing to do with the previously discussed atomic demolition using SADM or MADM as described above. It is an entirely new concept.

During the modern nuclear demolition process, a demolition charge does not produce any atmospheric nuclear explosion - with its trade-mark atomic mushroom cloud, thermal radiation, air-blast wave and electro-magnetic pulse. It explodes quite deep underground - much in the same sense as any nuclear charge explodes during a typical nuclear test. So, it produces neither air-blast wave, nor any thermal radiation, nor any penetrating ionizing radiation, nor any electro-magnetic pulse. It causes only relatively minor harm to surroundings by its ensuing radioactive contamination, which, nonetheless, is considered to be a negligible factor by the designers of such projects.

What is the basic difference then between an atmospheric and an underground nuclear explosion?

The basic difference is as follows. During the initial stage of a nuclear (as well as a thermo-nuclear) explosion, its entire explosive energy is being released in the form of "primary radiation" which in its main part (almost 99%) falls within an X-ray spectrum (and the remaining portion is represented by a gamma-ray spectrum which causes radiation injuries and a visible spectrum which produces a visible flash). So, the almost entire explosive energy represented by X-rays is spent on heating the surrounding air within a few hundred feet around the explosion's hypocenter.

This occurs because X-rays can't travel very far as they are consumed by the surrounding air. The heating of the relatively small area around the hypocenter of a nuclear explosion results in the appearance of "nuclear fireballs" which is physically nothing more than extremely overheated air.

These nuclear fireballs are responsible for the two main destructive factors of an atmospheric nuclear explosion

1) thermal radiation
and

2) an air-blast wave since both factors result exclusively from the high temperatures of air around the nuclear explosion.

When it comes to an underground nuclear explosion, the picture is entirely different.

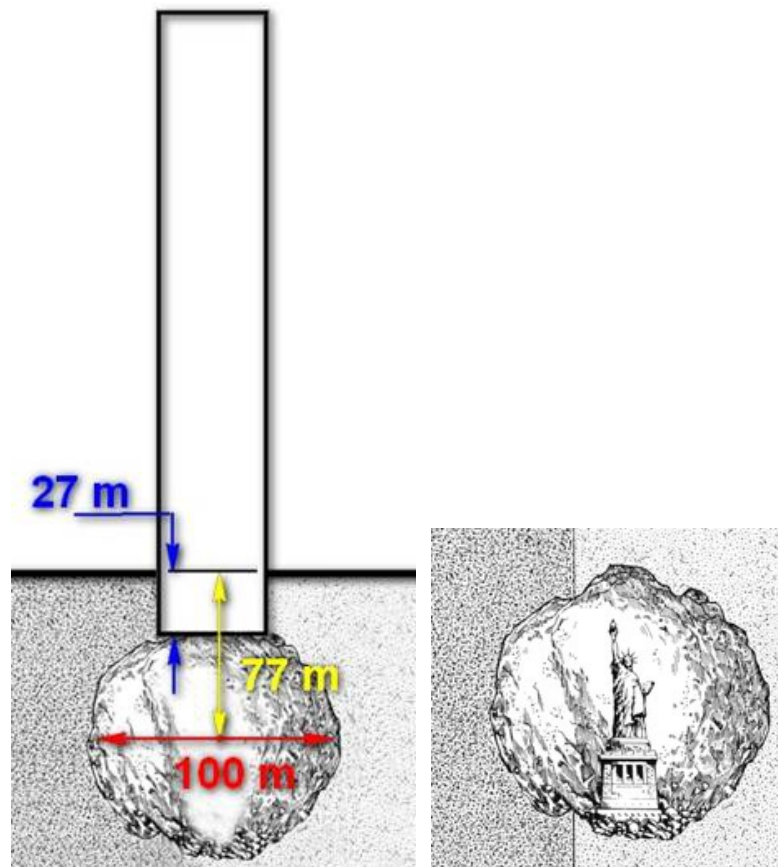
There is no air around the tiny "zero-box" which the nuclear charge is placed into, so the entire amount of energy instantly released by the nuclear explosion in the form of X-rays is spent on heating the surrounding rock instead.

It results in the overheating, melting and then vaporizing of the rock. The disappearance of the vaporized rock results in the creation of an underground cavity whose size depends directly on the explosive yield of nuclear munitions used.

You can get the idea on how much rock would disappear during an underground nuclear explosion based on the table below - whereby the quantities of vaporized and melted materials of various kinds (in metric tons) are shown on a "per kiloton of yield" basis:

Rock type	Specific mass of vaporized material (in tons per kiloton yield)	Specific mass of the melted material (in tons per kiloton yield)
Dry granite	69	300 (± 100)
Moist tuff (18-20% of water)	72	500 (± 150)
Dry tuff	73	200 - 300
Alluvium	107	650 (± 50)
Rock salt	150	800

Just as an example: the detonation of a 150 kiloton thermo-nuclear charge buried sufficiently deep in granite rock would result in the creation of a cavity measuring roughly 100 meters in diameter - such as the one shown in this picture:



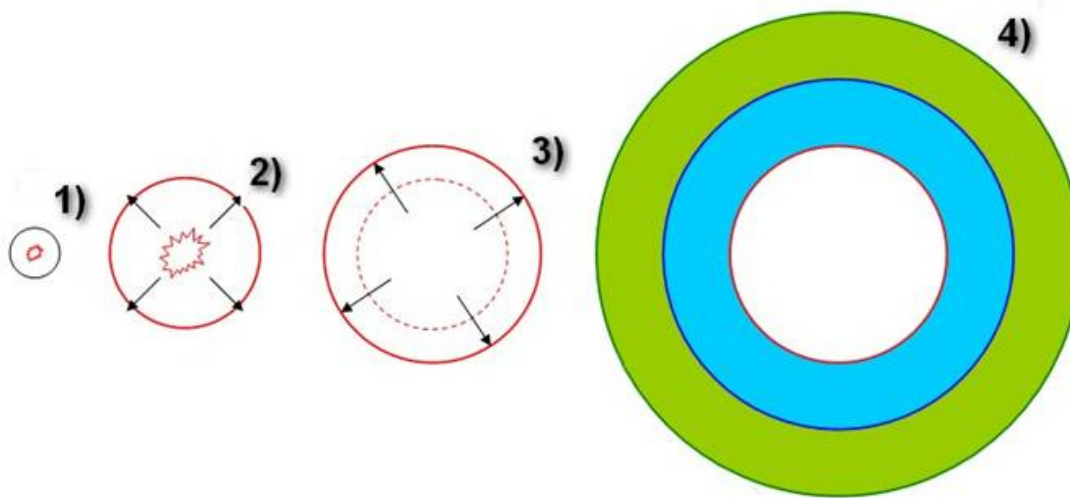
All skyscrapers have their lowest foundations approximately 20-30 meters beneath the surface of the Earth. So therefore it is easy to calculate the position under the skyscraper where you would need to position the "zero-box". This is the precise location from where it will expand its upper cavity which is in the direction of the lowest subbasement of the building.

For example, in the case of the Twin Towers, their lowest underground foundation was 27 meters beneath surface. A 150 kiloton thermo-nuclear demolition charge was positioned at a depth of 77 meters below surface (or 50 meters below the underground foundation). A thermo-nuclear explosion at a depth of 77 m would create an extremely overheated cavity whose upper sphere would expand to the lowest underground foundations of the tower it intended to demolish. However, it would still be short of reaching the surface of the Earth by 27 meters - so the surrounding structures would not to be affected by the destructive factors of the underground nuclear

explosion, with the possible exception of radioactive contamination. The Tower being demolished then loses its foundations completely and is sucked into the overheated cavity whose internal temperatures are hot enough to melt the entire Tower. The nuclear demolition schema of WTC building # 7 and that of the Sears Tower in Chicago were calculated in the exact same way.

However, there is one additional factor that needs to be taken into consideration during the calculation of the nuclear demolition of any skyscraper. This is the actual vaporized granite rock inside the cavity. How is all that former granite rock, which now exists in a gaseous state, supposed to escape from the cavity? In fact, a picture of the physical events after an underground nuclear explosion is quite interesting. Let's consider it.

Typical physical processes during an ideally deep underground nuclear explosion.



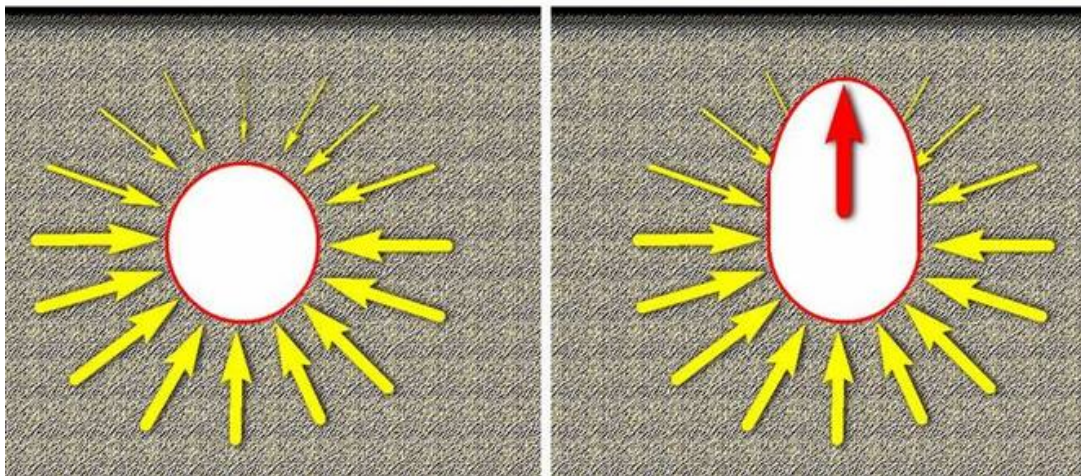
- 1) Nuclear explosion starts to heat the rock around its hypocenter.
- 2) Rock is vaporized. As a result of the disappearance of the vaporized rock, a "primary cavity" appears and is filled with the former rock which now exists in gaseous form. The extremely high pressures from the gases in the cavity now begin to expand the actual primary cavity at the expense of neighboring areas of the still solid rock.
- 3) The actual cavity reaches its final "secondary" size because of the extremely high pressure from the gases inside of it and as such expands from its original size (shown by the dotted line) to an even bigger size (shown by the firm line). Given that this expansion occurs at the expense of the neighboring areas, these neighboring areas of rock become tightly compressed.
- 4) Final picture. White: the underground cavity (the secondary size); blue: the "crushed zone" – totally pulverized rock (crushed into complete microscopic dust ~100 micron particle size); green: the "damaged zone" – partly crushed rock.

This pictorial rendition schematically outlines all the important physical processes of an ideally deep (meaning that it occurs sufficiently far from the Earth surface) underground nuclear explosion. So, now it should be clear that the extreme pressures from the vaporized rock inside the cavity takes on at least two important tasks: 1) it expands the actual cavity from its "primary" size to its "secondary" size; and 2) because it does this expansion at the expense of the neighboring areas of the rock, it produces two damaged zones around itself, each representing a different degree of damage.

The zone immediately adjacent to the cavity in nuclear jargon is called the "crushed zone". This zone can be as thick as the diameter of the cavity itself and is filled with a very interesting matter. It is filled with rock that is now completely pulverized. It is reduced into a fine microscopic dust, an approximate particle of which is about 100 microns in size. Moreover, the particular state of material within this "crushed zone" is in a very interesting state – nothing in the world can produce the following phenomenon other than an underground nuclear explosion:

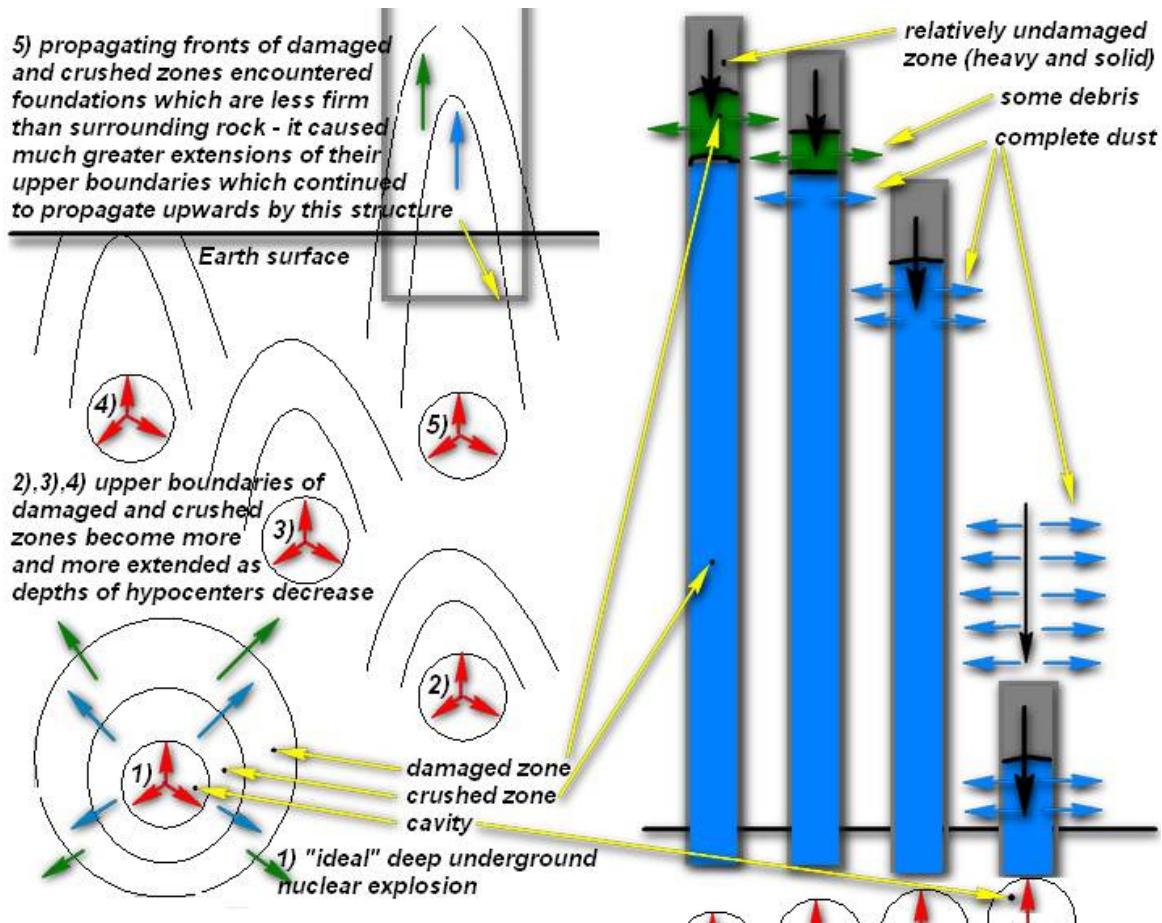
If you were to pick up a stone from this zone, but do so very gently, it might still stick together and resemble a stone by its form and its color. However, if you just squeeze the stone a little bit with your fingers, this "stone" will immediately be crushed into complete microscopic dust which it actually now consists of. The second zone – just outside of and surrounding the "crushed zone" is called the "damaged zone" in professional nuclear jargon. This "damaged zone" is filled with rock crushed to various pieces - from very small (millimeters in size), to some relatively larger fragments. The closer to the border of the "crushed zone" you get, the smaller the debris becomes, and the further away from hypocenter you go - the larger the debris. Finally, outside the "damaged zone's" border, there would be virtually no damage inflicted to the surrounding rock.

However, the physical processes we discussed above are true in an "ideally deep" underground nuclear blast. When a nuclear charge is not buried deep enough, the picture will be slightly different. The "damaged" and "crushed" zones will not appear as round as in the prior example. They will be rather elliptic – whereby the longer end is directed upward – like the shape of an egg. This happens because the pressure from the gases encounters less resistance in the direction of the Earth's surface (given that it is so close), and both the "crushed zone" and "damaged zone" will expand upwards as well in the same fashion.



The drawing above is an illustration of the resistance of the surrounding rock when a cavity is located not very deep below the Earth's surface. Evidently, the resistance of the rock towards the Earth's surface will be much less than in any other direction. Given that everything goes in the way of least resistance, it is understandable to note that the cavity will expand more towards the Earth's surface and won't look so "round". It will look more like an egg. In other words, it will be ellipsoidal in shape.

When the pressure propagates upwards, the upper boundaries of the "damaged zone" and the "crushed zone" eventually reach the underground foundations of the Tower they are about to demolish, the picture is even more different. This is because the actual materials the Tower is built of differ from the surrounding granite rock in the sense of their resistance. Besides, there is a lot of empty space inside the Tower, while the remaining granite rock in all other directions (to the sides and below the cavity) is solid. So, the expansion of the upper boundaries of the "damaged" and "crushed" zones by the Tower's structure will be the furthest. In the case of the WTC Twin Towers and the Sears Tower, the "damaged zone" could likely reach up to 350-370 meters, while the "crushed zone" which follows immediately, will likely reach up to 290-310 meters. However, in the case of the much shorter WTC-7, its entire length was well within the "crushed zone" - so it was pulverized completely from bottom to top. The ability of a nuclear demolition to pulverize steel and concrete alike is one of its unique features.



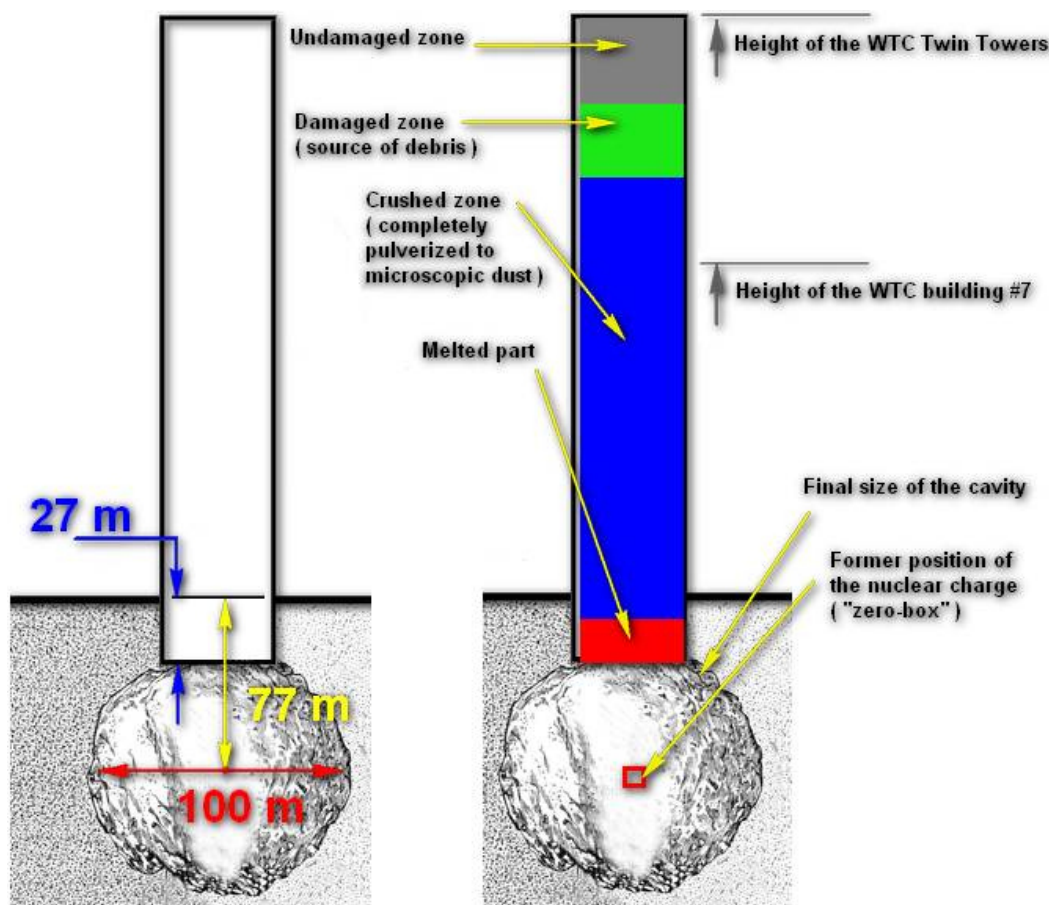
Dust covers an abandoned produce stand in lower Manhattan.

Photo © Aris Economopoulos / The Star-Ledger

The picture above shows an example of the fine microscopic dust that covered all of Manhattan after the WTC demolition. Many people mistakenly believed that it was "concrete dust". No, it was not. It was dust – but mainly pulverized steel. Despite the common misconception, the WTC structures did not contain much concrete at all. Concrete was used only in some limited quantities to make very thin floor slabs at most. It was not used anywhere else. The majority of the WTC Twin Towers was steel, not concrete. So accordingly, the majority of

this ultra-fine dust is represented by steel dust. However, it was not only "steel dust" alone - it was also "furniture dust", "wood dust", "paper dust", "carpet dust", "computer parts dust" and even "human dust", given that human beings were left to be pulverized in the Towers the same manner in which the steel, concrete and furniture were.

Some may wonder how WTC-7 collapsed so neatly into its own footprint, and in its entirety, while the Twin Towers came down not only scattering dust, but even larger debris and ejecting them to such far distances. This question is very easy to answer – you just have to look at the distribution of the "crushed" and "damaged" zones within the Twin Towers structures and the answer will become obvious.



The picture above represents the approximate distribution of the damaged zones in the scenario of a nuclear demolition of a skyscraper using a 150 kiloton thermo-nuclear charge positioned 50 meters deeper than the lowest underground foundations of the building. Don't forget that the demolition charges in this particular case were buried not "ideally deep", which is why the formations of the "crushed" and "damaged" zones were not "ideally round" either - they were elliptic, with their sharper ends facing upwards – like an egg – in the way of least resistance. It is easy to understand that the entire length of the WTC-7 fit well into the "crushed zone" alone so there were not any undamaged areas on top of it that might produce the effect of an undamaged top falling down like we saw during the collapse of the North and South Towers.

The particular distribution of damage within the skyscrapers' structures inflicted by such a process could be better understood when you watch the videos that show the details of the collapses of the WTC Twin Towers and of WTC-7. These contemporary videos are widely available on YouTube.



The North Tower just began to collapse a moment ago.





These two pictures show the North Tower's collapse (which collapsed 2nd). It is clearly seen that the Tower was reduced to a fine fluffy dust. In the lower right corner it is clearly visible that WTC-7 (the glassy shining nice brownish building) was not damaged at all. On the right picture WTC-7 appears to be a little bit "shorter" than in the left one, but this wasn't because WTC-7 was "collapsing" in any way, it was because the helicopter taking the picture was on the move and the second picture had been taken from a slightly different angle and with the photographer himself being at that moment slightly further away from the WTC location. WTC-7 did not collapse until 7 hours later.

VIDEO - YouTube direct link: <http://www.youtube.com/watch?v=OcsBQHvggU>

VIDEO 2:

This video contains a very good compilation of the detailed view (3 different view points) of the collapse of the WTC North Tower. It leaves no doubt that the steel structure of the Tower was reduced to complete microscopic dust. The pattern of collapse of the heavy and undamaged Tower's top clearly shows that nothing solid remained under it, except only complete, fluffy steel dust. Note also that the heavy top of the Tower falls down at freefall speed – as if there were no remnants of steel underneath, just air alone.

VIDEO - YouTube direct link: <http://www.youtube.com/watch?v=QY3qYr3dpdU>

VIDEO 3:

This video is a very good view of the collapse of the WTC South Tower that was completely 'dustified'. This footage leaves no doubt that the steel structure of the Tower was reduced to complete microscopic dust. The pattern of collapse of the heavy and undamaged Tower's top clearly shows that nothing solid remained under it, except complete, fluffy steel dust.

VIDEO - YouTube direct link: <http://www.youtube.com/watch?v=MXeAPcsD3-o>

VIDEO 4:

This is a very HQ video from the recently released NIST Cumulus Video Database. Excerpt from file "WNBC Dub10 54". This video clearly shows a strong earthquake (well over 5.5 on the Richter scale - telling us that an underground nuclear explosion of no less than 100 kilotons is responsible). The earthquake consists of one shock and one aftershock and took place exactly 12 seconds before the top of the North Tower started to move down. This coincides with the North Tower's shaking on the famous Etienne Sauret video show. Aside from showing the clear details of the North Tower's complete pulverization during collapse, this video also clearly displays details of the pulverization of the remaining steel spear visible to the right that was missed by the Tower's top falling downwards and was pulverized under its own pressure a few seconds later (pulverization of the steel spear is clearly seen after the passing by of a truck). This footage leaves no doubt that the steel structure of the Tower was reduced to complete microscopic dust. The pattern of collapse of the heavy and undamaged Tower's top clearly shows that nothing solid remained under it, except for complete, fluffy steel dust.



This is a detailed view of that remaining steel spear, turning into steel dust, but filmed by another camera and at a different angle.

VIDEO - YouTube direct link: <http://www.youtube.com/watch?v=CM88xJX5FsA>

VIDEO 5:

This is the famous video by Etienne Sauret. It clearly shows a strong earthquake (well over 5.5 on the Richter Scale - telling us that an underground nuclear explosion of no less than 100 kilotons is responsible). This is clear proof of the WTC nuclear demolition. The actual earthquake caused by the nuclear explosion underneath it – the one that took place 12 seconds before the top started to move downwards. These 12 seconds were required for the nuclear explosion to vaporize the rock, accumulate sufficient pressure and then create the “breaking point” at which the “primary” cavity expands to its “secondary size” which results in a “compressing wave” that propagated with supersonic speed up the Tower’s body “dustifying” it instantaneously. Note – this is the very same earthquake which is seen on the previous video above.



These photos show in detail how the steel WTC South Tower (which fell first, despite being hit second by a “plane” hijacked by “terrorists”, and despite the fact that the fire in it lasted a much shorter period of time than in the North Tower) was instantly transformed into fine dust.

It should also be noted that despite the apparently insufficient 150 kiloton thermo-nuclear charge used to attempt to pulverize the Twin Towers in their entirety (as shown in the above sample where the Twin Towers were

pulverized to only about 80% of their entire lengths, leaving the very tops heavy and intact), nuclear charges of higher yields could not have been used in the nuclear demolition industry due merely to legal reasons. The problem is that in accordance with the USA - Soviet "Peaceful Nuclear Explosions Treaty of 1976", the yield of nuclear munitions used for non-military purposes was limited to 150 kilotons /per individual nuclear explosion and to a maximum of 1.5 megaton aggregate yield for group explosions.

So, the nuclear demolition industry had to fit into these legal frames: in the case of the WTC demolition, it was possible to use as many charges as necessary, but not in excess of 150 kiloton per charge. That is why the WTC nuclear demolition schema consisted of three of such charges - whose aggregate yield was 450 kilotons. For those people who have difficulty in imagining how powerful 150 kilotons is, you should be reminded that the atomic bomb which was dropped on Hiroshima in 1945 was less than 20 kilotons.

The "planes".

Now, as I presume the reader has already understood how strong the Twin Towers were and that it was not even possible to bring them down using any conventional demolition and only possible by huge underground thermo-nuclear explosions, it would be interesting to consider another question: If aluminum-made passenger planes would ever be capable of penetrating the Twin Towers like it was shown to us on TV?



This is the second terrorist "plane" which is about to penetrate the thick double-walled steel perimeters and completely disappear into the South Tower.

VIDEO - YouTube direct link: <http://www.youtube.com/watch?v=cXxZNHrtyuU>
and <http://www.youtube.com/watch?v=dDJmSLQ2lqE>

VIDEO 6:

This video is the most shameless 9/11 concoction by Evan Fairbanks. It shows an aluminum plane cutting through the steel perimeters of the WTC South Tower (that were as thick as a tank's armor) with as much ease as if the plane itself were made of steel, and the Tower made of butter.



Besides, a man that was accidentally caught in the frame reacted to neither the sound of an approaching plane, nor to the sound of aluminum crashing through steel. The man reacts to the actual explosion inside the Tower only. It is clearly noticeable. When it comes to the plane - you can see that the plane merely digitally erases itself upon disappearing inside the Tower - not even the tiniest part of the plane falls back onto the sidewalks. And what is even more ridiculous is that the plane does not even reduce its speed upon "penetrating" the Tower....

First of all, to make this understanding easier, let's briefly come back to the point I started this article with: since the Twin Towers collapsed not due to "kerosene", but because of huge underground thermo-nuclear explosions, moreover, they collapsed in the "wrong order", and, in addition to that, WTC-7, which was not even hit by a "terrorist plane", also collapsed, we can presume that the planes were *not actually needed*. They were redundant because they had no contribution whatsoever to the actual collapse of the World Trade Center (kerosene for the fires could have been as well brought in in barrels).

Since the planes were redundant it would be safe to presume that the 9/11 perpetration could have been performed even if there were no planes involved – the Twin Towers and the WTC-7 had to go, because someone had decided so and it had absolutely nothing to do with any "planes".

Therefore many reasonable 9/11 researchers began to question the allegation the US Government put forth saying it was "planes" striking the Twin Towers that supposedly caused the demolitions.

Many researches exist now on the Internet (especially famous video presentations such as "September Clues" and "FOXED OUT" which are available on YouTube) that include the analyzing of various contemporary 9/11 "plane" footage and they prove in the most satisfactory manner that the "planes" were merely digitized into the frames.

However, the author of these lines prefers a different approach. Instead of analyzing various inconsistencies of the said 9/11 videos, which many people might doubt, the author of these lines prefers to go straight to the self-evident point: that aluminum cannot penetrate steel. Period. To believe that two aluminum Boeing 767's were indeed able to penetrate those thick double-walled perimeter columns as shown in the above picture is no different than believing that the laws of physics suddenly decided to take holiday on the 11th day of September, 2001, AD.

Some people, understandably, could ask the question: since the planes, even though aluminum-made, were flying at almost 500 mph, due to their tremendous mass and speed would they not have had enough kinetic energy to penetrate the Twin Towers even if the Twin Towers were made of steel?

This is the wrong approach, however.

Yes, intuitively, it seems that a large, fast moving aircraft represents a lot of energy, and one would think it would be reasonable for an aircraft to do a lot of damage to a building on impact.

But what do you think would happen - hypothetically - if the aircraft were stationary in the air, and someone picked up one of the enormously massive WTC Tower, swung it violently, and hit the aircraft at an impact speed of 500 mph ?

Would it flatten the aircraft, do you think, or would the aircraft go clean through the moving building without even the slightest part of the aircraft remaining outside of the outer skin of the Tower (which was twice as thick as the front armor of a tank)?

Give that a thought for a moment, because whether the aircraft was hitting a stationary Tower, or the Tower hitting a stationary aircraft, the physics of the situation is identical.

The intuitive response to the damage from a "fast moving aircraft" may not be quite so intuitive.



In the photo above, you can see damage inflicted to the neighboring "Verizon-Building" by such a piece of steel perimeter assembly.

Now, look at the photo above and imagine that such a steel perimeter assembly fell on a Boeing-type aircraft parked right under the building. What would happen with such an aircraft? Yes, you guessed it – the aircraft would be flattened. You will lose all doubts as to how a passenger aircraft is flattened if you watch the video below (it is enough to watch only the first one and a half minutes of it in order to understand what I mean – the rest of the video you can skip):

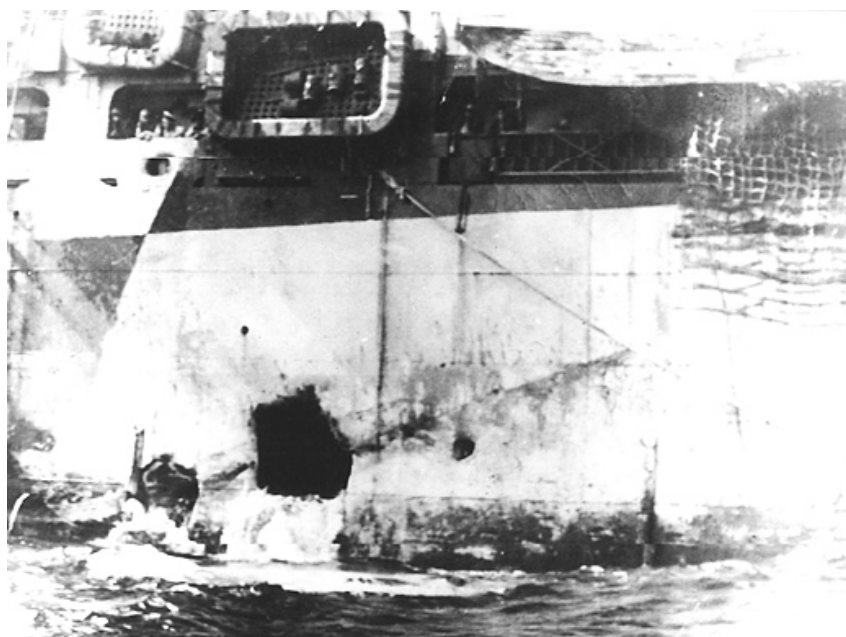
VIDEO – YouTube direct link: <http://www.youtube.com/watch?v=UTytIbuAg9U>
spare link: <http://www.youtube.com/watch?v=inXhxm47JrY>

VIDEO 7:

or, if this video is no longer available, you could probably find it on YouTube by searching for the following keywords **"Filmtricks und falsche Zeugen"**.

Many people who at first didn't pay much attention to the actual Twin Towers' construction and at first thought that the outer fazades of the Twin Towers were simply made from huge glass panes alone (which would, understandably, allow planes to break in) later, to their utter dismay, discovered that the Twin Towers were in reality made of thick steel columns – no different than its steel core columns and that such densely positioned steel columns indeed constituted their outer perimeters. Once this becomes clear, it then becomes obvious that no plane could have ever sliced in its entirety (even including the ends of its wings and tail, not to mention the large turbofan engines beneath its wings) through such densely positioned thick steel perimeter columns and completely disappear inside the Towers without even the slightest part falling back onto the street.

Our previous generation may remember the effect of Japanese kamikaze pilots hitting American main battle ships and aircraft carriers and what happened when the planes hit the side of the ship: the plane was just broken apart (without even penetrating the ship's wall) and simply fell back into the ocean. In the example of a non-armored ship – the only thing that could penetrate into the ship was the steel motor, but never any other parts of the plane – such as the wings, tail or fuselage.

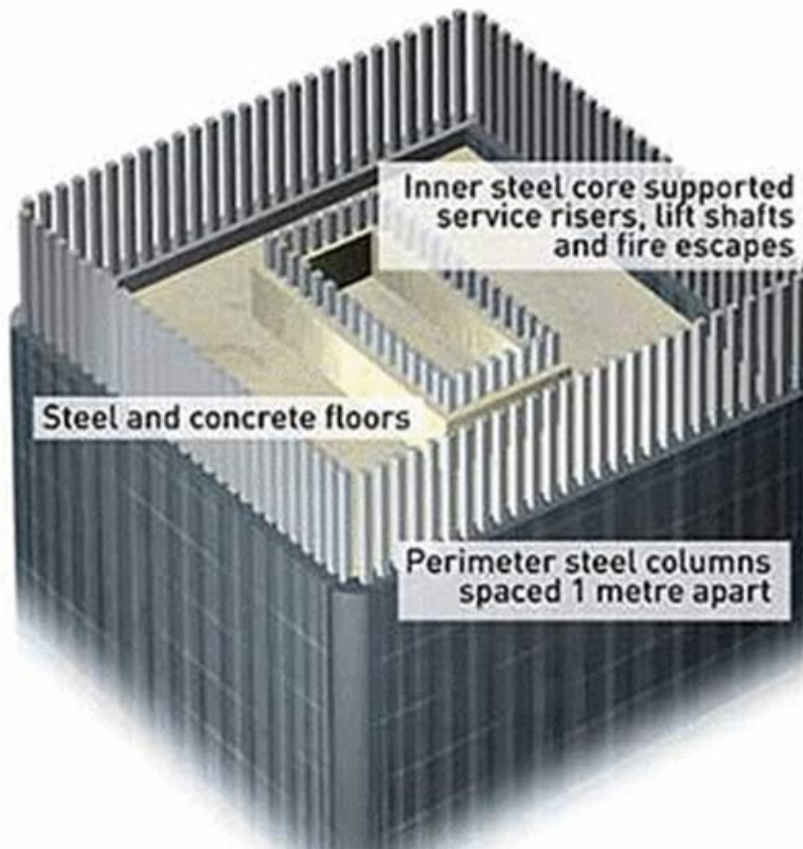


Above is a WWII photo showing damage inflicted by a kamikaze plane to a non-armored US ship. Note: an armored ship (like a main battle ship) could not have been penetrated whatsoever.

Based on this premise, one can make his own estimation looking at the pictures of core columns below:



Above: profiles of the remaining core WTC columns found at “Ground Zero”; their comparative thickness can be easily estimated; actually they feature walls that are 2.5 inches thick; such thick columns made of steel constituted both – the cores and the entire perimeters of the Twin Towers.



In this official sketch, you can see how the thick core structures were positioned – not only in the Towers’ middles, as believed by many people, but also along their entire perimeters.

Does anyone seriously believe that an aluminum-made “Boeing” could slice through, in its entirety (including its tail, wings and large turbofan engines), the above-shown steel perimeter columns? Placed only one meter apart of each other?



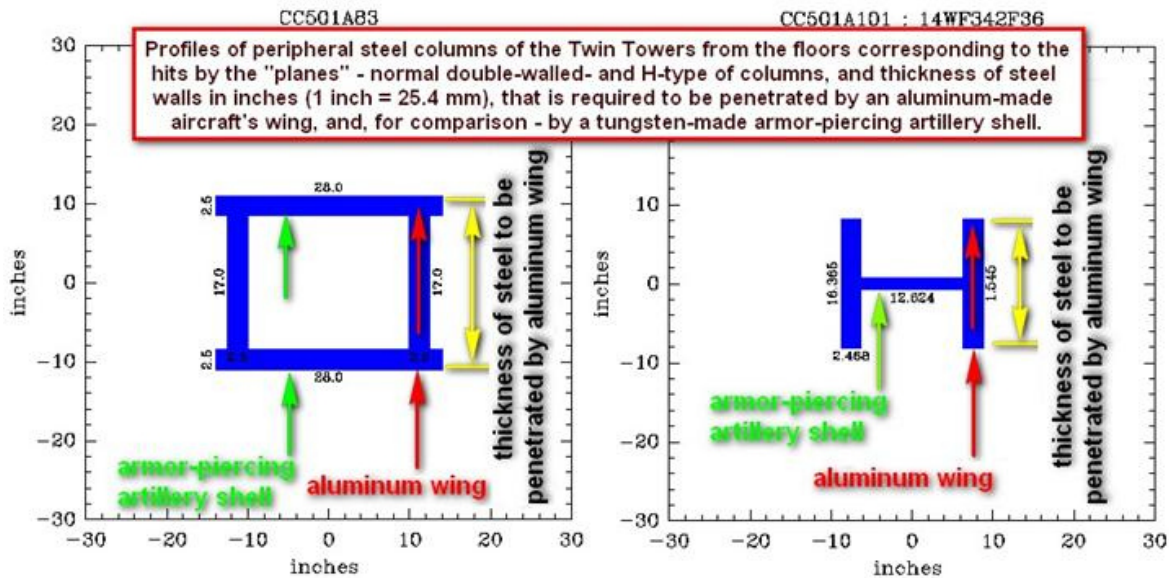
Above you can see the thickness of a steel perimeter column of the Twin Towers being examined at "ground zero".

Actually, it might be a little difficult to comprehend that it is impossible for an aluminum object to penetrate steel; so, exclusively for this reason here is a hint – as a basic premise. It is well-known that an armor-piercing artillery shell is made of materials stronger than the actual armor it is intended to penetrate. Typically, armor-piercing shells are made of Wolfram (Americans also produce armor-piercing shells which contain, instead of very expensive Wolfram, Uranium-238, which is an otherwise useless material, but capable of penetrating armor due to the fact that it is much heavier than steel).

Armor-piercing shells made of aluminum obviously don't exist – this is quite obvious in of itself. Neither do aluminum swords nor any other cutting/piercing tool used to cut through steel. The mere notion that an aluminum object can slice through steel doesn't just sound far-fetched, it sounds crazy. It shall be also noted that any armor-piercing shell fired against a tank or against any other armored object needs to travel at a speed of at least three times the speed of sound – because even though they are made of Wolfram, this aspect alone is not enough to achieve the ability to pierce steel – a very high speed is the second factor required in order to pierce steel. The speed of a typical armor-piercing shell fired from an anti-tank cannon is actually more than three times the speed of sound – it is at least 1000 meters per second and usually much faster than this, while the maximum cruise speed of a Boeing passenger jet is subsonic – meaning less than 250 m/sec even in its best scenario.

It is a good idea to look at these columns again and try and recognize the fact that their thick double walls are comparable to the armor used to make tanks. To penetrate one of these columns alone would be a challenge for even an armor-piercing shell fired from a long-barreled anti-tank cannon at point-blank range. In fact, the concept of "double-walls" is applicable only in the case of an armor-piercing shell because it faces the mere task of penetrating only two perpendicular walls that stand in its way.

However, an aluminum plane faces a much more difficult task – in addition to the two perpendicular walls standing in its way, it must also cut through two additional parallel walls because each of these tubes is actually comprised of 4 walls, not just two. And these two parallel walls, as you can see below, have a much greater "thickness" because they represent an entire 17 inch wide wall you have to slice through as well!



The picture above depicts the official diagrams showing the profiles of the peripheral columns of the Twin Towers of two types from the floors corresponding to the hits of the supposed "planes" and with arrows added by me that are illustrating the thickness of the steel being penetrated/sliced by the aluminum wings of the aircraft and of those by an armor-piercing artillery shell for comparison. The actual official diagrams of this kind can be found here:

<http://wtcmodel.wikidot.com/nist-core-column-data>

Now, you can see how impossible it would be for the supposed armor-piercing capability of an aluminum "Boeing 767" – after seeing how difficult it is even for an artillery armor-piercing shell designed specifically for this purpose. Why then didn't the "9/11 Commission" or the "engineers" from NIST dare not try to perform experiments in which they penetrated several steel columns with a Boeing (even a de-commissioned one)? That kind of experiment would have been ideal in proving to non-believers that it was really "terrorist planes" which managed to demolish the World Trade Center... This particular realization led many people to believe that since aluminum planes simply can't perform such a feat, that it must have been "digital" plane which managed to cut through the dense double-walled steel perimeters of the now defunct Twin Towers...



Above is a detailed view of the damage inflicted by the supposed "Boeing-767" to the WTC North Tower's steel perimeter columns.

It is clearly observed that the perimeter bars were all cut in just a few ridiculously straight lines, moreover parallel to one another, such that the actual shape of the "impact hole" doesn't even match the silhouette of a plane. In fact, the explanation to this ridiculous phenomenon is quite simple.

As you can see from this picture, the Twin's perimeters were not made from steel columns alone. There was also additional aluminum coating fixed on the outer sides of the steel perimeter columns. And, unlike the steel columns (which were more or less solid from the bedrock all the way up to the Tower's tops), the aluminum coating was arranged in much shorter vertical segments. If you look at the above picture's detail carefully enough, you will notice certain horizontal lines parallel to each other repeating on equal intervals which are slightly visible on the undamaged parts of the Tower's facade. These lines are nothing more than joining points where aluminum coating pieces connect together length wise.

The problem the 9/11 perpetrators had was that they needed to position the hollow-shaped charges of conventional explosives (which were designed to imitate the impact holes – the planes' silhouettes) not inside the Tower, but OUTSIDE the Tower – because their explosive energy need to be directed inwards to make the entire set up look plausible.

If they positioned the charges inside the Tower, then the entire section of the Tower that was supposed to be "hit by a plane" would not fall inside the Tower as it was supposed to happen. It would have been blown out of the Tower and, instead of the "landing gear" and the "plane's engine" simpletons would find on a sidewalk, they found pieces of the Tower's own perimeters.

Apparently, this was not an option.

Attaching the cutting charges outside the Twin Tower's facades was not an option either – they would be visible to the public.

Therefore, the tricky 9/11 perpetrators placed the hollow-shaped charges in between the outer aluminum coating and the actual perimeter steel columns. The explosive energy of the charges was directed inwards – in order to cut the steel bars precisely in the right spots. And, indeed, it worked – as you can see the inner steel bars (which appear to be a "rusty" color as opposed to the bluish-shiny aluminum coating) were indeed cut in the correct spots to imitate the planes' silhouettes precisely. Moreover, the cut ends of these steel bars additionally bend inwards – exactly as it was supposed to look.

However, the 9/11 perpetrators miscalculated something.

Even though most of the explosive energy of the hollow-shaped charges was directed inwards (towards the steel), some relatively minor explosive energy was directed backwards – creating a kind of recoil effect. This managed to blow the aluminum coating outwards. However, instead of actually "cutting through" this aluminum coating, the unruly explosion simply tore out these entire full strip lengths of aluminum and threw them back outwards onto the sidewalks.

Therefore, depending on the vertical disposition of the hollow-shaped charges in some parts, it was single vertical length of aluminum bars that got torn out, and, in some other places – double vertical length ones, and, in some other portions – triple vertical length, etc. Therefore these "impact holes" look so ridiculously silly – displaying their "stepped" pattern, instead of the perfect silhouette of a "plane" like it would have been if there were only steel bars alone.

[The below insertion was missing in the original NEXUS-magazine version; it was added only to the Internet-version of this article.]

You can see in detail how these pieces of aluminum coating were blown outwards on the very last video which is at the end of this article and is designed to demonstrate the absence of the vortices from the planes' engines.

At the very beginning of that video, you can clearly see multiple fixed length pieces of aluminum coating being blown outwards slightly ahead of the fireballs from the actual explosion which was supposed to have been

caused by the "first plane" which supposedly penetrated the North Tower of the WTC.

Here is a screenshot of that video showing the pieces of same length aluminum coating flying outwards:

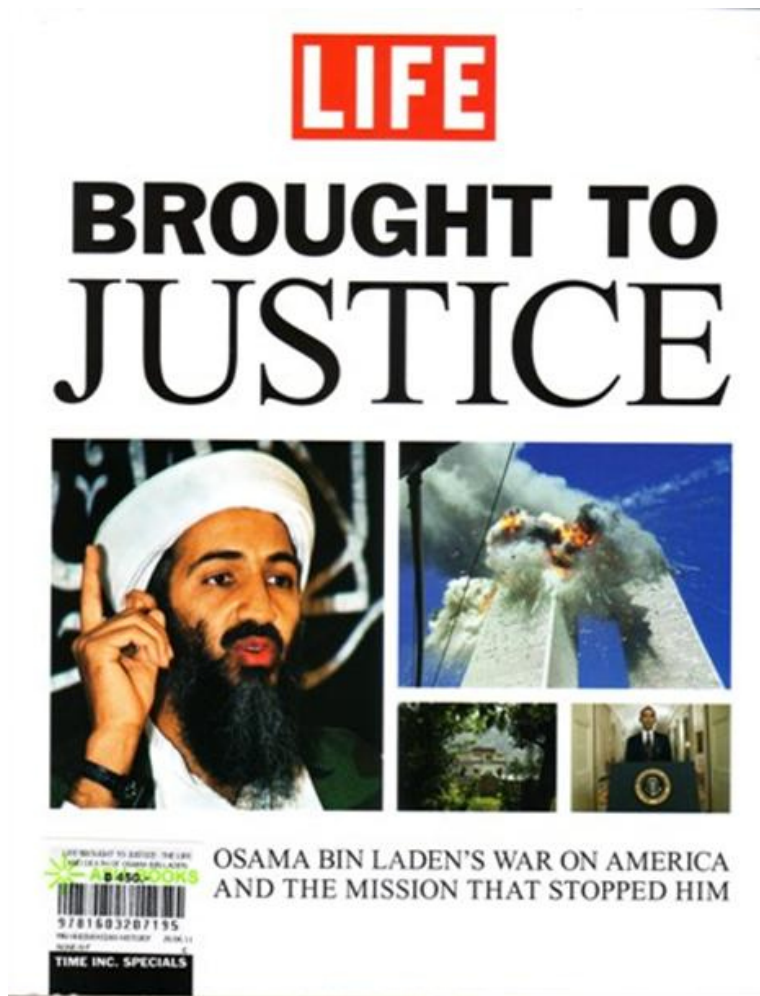


I have always dreamed of finding some good quality pictures which show the pieces of that outer aluminum coating flying away the moment of explosion. But because such pictures were considered "highly seditious" by the US authorities, they were all censored and it was nearly impossible to discover them anywhere on the Internet for many years. However, maybe because of my good luck, I was actually able to find one of such pictures by mere chance (or, perhaps by God's grace).

On July 16, 2011, I stumbled upon a special edition of a certain magazine named "Life" in a book store in Bangkok.

The edition was titled "Brought to JUSTICE" and was devoted entirely to the then recent alleged "murder" of Osama bin Laden (who was claimed to have been allegedly "murdered" by US commandos somewhere in a sovereign territory in the independent state of Pakistan and whose body was hastily drowned in the nearest deep sea location some approximate 2,000 kilometers away).

Usually I have no interest in such propaganda material, especially of this kind, but this time I was waiting for a friend and had nothing better to do. So I took the magazine from the stand and lazily flicked through it.



The cover of the magazine I am talking about.

Aside from a few high quality portraits of Osama bin Laden and his relatives and of a few ridiculously propagandistic photos, on pages 8-9 of the magazine was placed a highly seditious shot of the explosion in the South Tower – exactly the one I had always dreamed of finding!

Of course, I immediately bought the magazine and scanned the photo out of it.

The photo belongs to a certain Naomi Stock. I feel that I have simply no right to deprive my reader of seeing this absolutely unprecedented shot and I sincerely hope that Ms Naomi Stock doesn't mind if I place her photo here along with the claim that this is the most important 9/11 evidence that has long been hidden from the community:



This unique high-quality picture shows in detail those pieces of aluminum coating of equal length, projecting away from the explosion, just a split second ahead of the orange fireballs that originate from within the Tower.

Some of those pieces of aluminum coating are seen on that photo in more or less exact detail.

Another interesting thing is that here you can see the pieces of aluminum coating flying in both directions – to the right (i.e. by the supposed “course” of the “plane”), as well as to the left – i.e. in the direction that is exactly opposite of the supposed “course” of the “plane” (the “plane” according to the official story and according to the video shown on TV approached the South Tower from the left).

Let's come back to the first photo above that shows the details of the damage and the peculiar “stepping pattern” hole that was supposedly created by the aluminum plane in the steel perimeter of the WTC North Tower (even including “narrow cuts” purported to have been made by aluminum wings and the aluminum tail of the aluminum “terrorist plane”).

Actually, I have an even better photograph of that spot than the above one. Here it is:



Since we now understand everything about the aluminum coating (that was positioned in same-length segments) and since we now understand everything about the whole steel columns under those pieces of coating, now we can clearly understand what happened in reality.



Regardless and aside from everything else, in this particular photo a woman can clearly be seen desperately holding onto one of the up-right columns; she is recognized as Mrs. Edna Cintron, who was hoping to be rescued at that last moment; unfortunately, she was killed in the collapse of the North Tower; but in that last moment of her life she demonstrated to the world (by her mere presence at the supposed "hot spot" where steel columns "melted") that the US Government lied to the public.

Actually, many people reading this can quite reasonably ask: But what about the eye-witnesses who saw "planes"? The answer is this: the number of eye-witnesses who DID NOT SEE ANY PLANES is about equal to the number of "eye-witnesses" who said they saw "planes".

NOTE: on my personal YouTube Channel there are a few "seditious" contemporary news releases pertaining to the very first minutes of the 9/11 tragedy. These videos show that NONE of the very first witnesses saw or heard any "planes", but only saw and heard EXPLOSIONS on the upper floors of the Twin Towers. Here are direct links to these videos:

<http://www.youtube.com/watch?v=0YarBxllzUk>

<http://www.youtube.com/watch?v=y68DfCMQS7c>

<http://www.youtube.com/watch?v=kPiQf53TSr4>

<http://www.youtube.com/watch?v=d3LXJwI-7xY>

<http://www.youtube.com/watch?v=bq1-BCeNcm0>

<http://www.youtube.com/watch?v=XA8xD9CFu40>

<http://www.youtube.com/watch?v=LT-Xa7rn7K4>

<http://www.youtube.com/watch?v=2VpWQ88Y9WM>

<http://www.youtube.com/watch?v=Ci2IWZY869I>

http://www.youtube.com/watch?v=7c8eT99_BAs

However, the mass media preferred to mostly air footage of "eye-witnesses" who claimed they had seen "planes".

The entire 9/11 production was a grand deception. If somebody could manage to produce falsified images of "planes" cutting through the steel perimeters of the Twin Towers like the planes were steel and the Towers made of butter, and managed to feed this footage to every mass media outlet, would it not be reasonable to presume he couldn't prepare some bogus witnesses ahead of time who would claim they saw "planes"? Of course, we have to presume so. All those "eye-witnesses" who allegedly "saw" how aluminum planes penetrated the steel double-walled perimeters of the Twin Towers with such ease were merely actors hired by the 9/11 perpetrators themselves to lie to the mass media and to the public in order to set the "official storyline" in motion.

And, finally, here are two more videos.

VIDEO – YouTube direct link: <http://www.youtube.com/watch?v=Rml2TL5N8ds>
<http://www.youtube.com/watch?v=uT1q0j5Pzr0> (second edition)

VIDEO 8:

This is so far the best and the most comprehensive research on the 9/11 “planes” made by a famous 9/11 researcher and a specialist in video compositing Collin Alexander alias “Ace Baker”. This video is an absolute “must see”.

And this final one is a brief video which, without having to say a word, clearly shows how we were tricked by “planes”. Regardless, at the beginning of this video you can see those same pieces of aluminum coating discussed above which fly outwards from the building.

VIDEO - YouTube direct link: <http://www.youtube.com/watch?v=Xlj1mVD2-HM>

VIDEO 9:

[Description verbatim from the YouTube by the video's creator:] *On all Videotapes of the 1st and 2nd strike there is no Vortex visible. I came aware of this when Factfinder general on Pilots for Truth told me half a year ago. Back then Rob Balsamo, Pilot, made me skeptical saying that the Heat of the Explosion, is too hot to be affected by the Vortices. But then I became aware of these Videos which clearly show that even in Napalm fire, Vortices are still present, as in normal air conditions. Watch the 911 Videos in HD and look closely, there is no turbulence in the smoke or fire. This is only possible when there are no Planes. This might look like a small piece to the perps, but is in fact hard evidence. Pre planted charges can look nice, but cannot reproduce the real effect of Jet Engines Turbulence/Vortices.*

The laws of physics didn't take a holiday on 9/11. But the common sense of gullible people watching TV

appeared to have taken that holiday instead...

Nonetheless, older English dictionaries printed before September 11 which define the very special nuclear term "ground zero" could serve as the best medicine to overcome the 9/11 illusion and to regain your common sense...

ground zero *n* : the point on the surface of the ground or water directly below which, above which, or at which the explosion of an atom bomb occurs

Along with older English dictionaries, for the same reason, these photographs could also be used to show the molten rock left behind after the underground cavities were created by nuclear explosions under all three buildings of the World Trade Center. They eventually cooled down and were, at last, cleared of all remaining radioactive materials:





Perhaps, without an obligatory formal witness's testimony the 9/11 picture drawn by me in this article would not be complete. Perhaps at least one testimony of a witness is indeed required. There are many of such testimonies available, but I selected the best and the most convincing ones.

There is one remarkable article titled "*Rudy Tuesday*" published by The New York Magazine online^[4]. This article is not only remarkable because the term ground zero in relation to Manhattan's "Ground Zero" is used in it "as is" – i.e. without any quotation marks and without any capitalization – as it would normally appear in any civil defense manual, but because of the actual statement by former Mayor of New York Rudolph Giuliani.

I think it is such a masterpiece of the important 9/11 evidence and such an important witness' testimony from the point of view of psychology, that I have to quote here the entire part of the article "as is", without modifying anything.

The important things you should pay close attention to, however, are made in **bold** by me. Make sure to notice that in the aftermath of the unprecedented WTC kerosene-pancake collapse the Mayor of New York for no apparent reason "went nuclear" and began his speech with silly comments about nuclear reactors and continued it with his claims that he KNEW on top of WHAT the ground zero workers were actually standing on (meaning the same people he sent to clean up ground zero without having issued any of them lunar-looking haz-mat suits):

*"Right, 9/11. Out in the dining room, after the salads are served, Delaware congressman Mike Castle takes the microphone. He talks about Rudy and the squeegee men. BlackBerrys continue scrolling. But then Castle tells of the ground-zero tour the mayor gave him and other congressmen in the days after the terror attacks. People start to pay attention. "He attended most of the funerals; he was there in every way possible," says Castle. "I don't think we can ever thank him enough for what he did." Now Rudy strides to the podium. The room rises. Suits at the cheap tables stand and a banker type sticks his fingers in his mouth and gives a loud whistle. Initially, Giuliani squanders the goodwill. A bit on immigration lands with a thud. He notes that China has built more than **30 nuclear reactors** since we last built one. "**Maybe we should copy China.**" What? You can see the thought bubbles forming over people's heads: Can this be the same guy we saw on television? The guy who was so presidential when our actual president was MIA? But then Rudy finds his comfort zone. Along with McCain and Mitt Romney, his best-known fellow Republican presidential contenders, Giuliani is out on the thin, saggy pro-surge limb with the president. But Rudy can spin the issue in a way McCain and Romney, not*

*to mention Hillary and Barack Obama, cannot. And now he does just that: **Iraq leads to 9/11**, which leads to the sacred image of construction workers raising the flag over ground zero. "I knew what they were standing on top of," Giuliani says. "They were standing on top of a cauldron. They were standing on top of fires 2,000 degrees that raged for a hundred days. And they put their lives at risk raising that flag." The room is silent. Not a fork hits a plate, not one gold bracelet rattles. "They put the flag up to say, 'You can't beat us, because we're Americans.' "The mayor pauses and, as if on cue, an old woman snuffles. He continues. "And we don't say this with arrogance or in a militaristic way, but in a spiritual way: Our ideas are better than yours.""*

I am not quite sure, of course, if "their ideas" are indeed "better than ours" because I don't think that it was a good idea at all – to demolish skyscrapers in the middle of a populated city by thermonuclear explosions whereby each explosion is 8 times more powerful than the Hiroshima bomb, but in principle I agree with Mr. Giuliani. The poor ground zero responders were indeed standing on top of a cauldron and they indeed did put their lives at risk – as you may sincerely expect to be the case when gullible people visit the location of a fresh nuclear explosion and without wearing any protective gear.

From now on, I believe, the reader has more or less a complete picture of the events – what exactly took place at Manhattan's "Ground Zero" and what the term "ground zero" used to mean in the pre-9/11 English language and this is even supported by important witness' testimony.

I guess that many readers, of course, will have a lot of questions – what hit the Pentagon? If planes didn't hit the Twin Towers, then where did the actual planes disappear to? What happened to the passengers? What happened with the alleged "hijackers"? What happened with Flight 93? Why was the Doomsday Plane seen flying on 9/11? Why was it not possible to collapse the North Tower before the South Tower? Why did US officials demolish the Twins and WTC-7 at all? Why were there not a lot of cases of acute radiation sickness among ground zero responders, but rather cases of chronic radiation sickness? Who sent the anthrax letters, and why? Why did the controlling services of other countries – for example, those of Russia, India and China – prefer to "look the other way" when the US Government demolished the World Trade Center using three 150 kiloton thermonuclear explosions and knowing that Afghanistan and Iraq had absolutely nothing to do with it? Why was the IAEA silent? And, at last, who organized 9/11 and why?

As you can probably imagine, 9/11 was such a complicated operation and its separate aspects are so much intertwined that it is simply impossible to describe the entire 9/11 affair "in brief" while devoting such little attention to each of its aspect. It is quite difficult to fill in all the blanks regarding the entire 9/11 scenario in such a short article.

In September of 2009, I produced a more or less comprehensive video-presentation that lasts well over 4 hours and explains quite a bit about 9/11 in its entirety. This video can be found on the Internet by searching for "Dimitri Khalezov video". Besides, I wrote a book that comprises well over 500 pages in A4 format. This is just to illustrate that it is really impossible - to explain in a fully comprehensible manner, what really happened on 9/11 in its entirety and in such a limited article. Perhaps, just attempting to explain the technicalities of the 9/11 missile attack on the Pentagon and the circumstances surrounding the Pentagon attack alone would require about as much info as contained in this article. But, hopefully, this story can be continued here.

Therefore, from all the potential questions mentioned in the above paragraph, I can only answer the last one: the 9/11 perpetration was organized by those who wanted to drive the United States along with other countries into ridiculous wars in Afghanistan and Iraq, and who want to strip the citizens of these countries of their last remaining civil liberties and human rights. It should be understood that no Al-Qaeda and not any other Muslim organization could have afforded to feed falsified "plane" footage to the US mass-media, to hire witnesses who "saw" aluminum planes penetrate steel and to simultaneously demolish the World Trade Center by three 150 kiloton underground thermo-nuclear explosions, each of which was 8 times as powerful as the first atomic bomb dropped on Hiroshima.

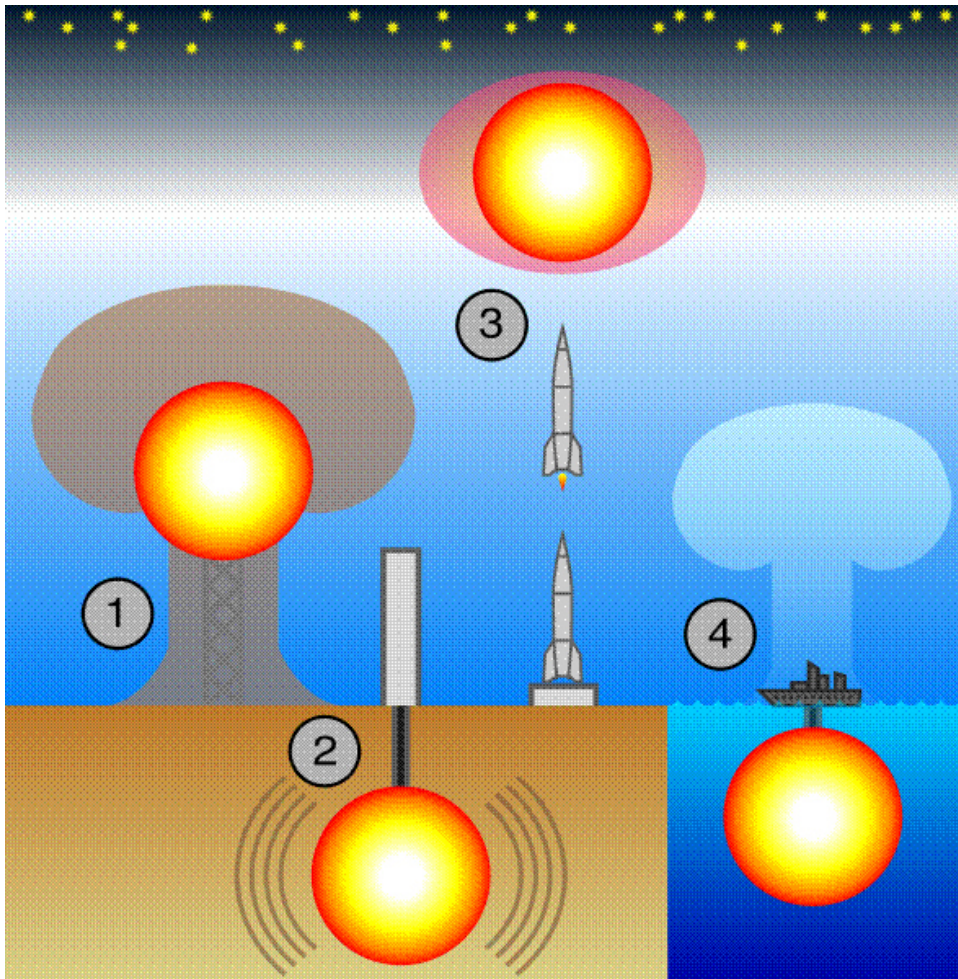
P.S. The most seditious diagram from the "old good days"...

The diagram below was discovered by one of my readers on the Wikipedia web site in an article describing nuclear tests here: http://en.wikipedia.org/wiki/Nuclear_weapons_testing

The actual picture was published here: http://en.wikipedia.org/wiki/File:Types_of_nuclear_testing.svg

The picture file was originally named: 591px-Types_of_nuclear_testing_svg.png

Though this picture was not included into the original version of this article published by the NEXUS magazine, I loved this silly drawing and couldn't resist adding it to the Internet-version of my article.



The diagram apparently represents four types of nuclear explosions conducted in various environments:

1) atmospheric; 2) underground; 3) exoatmospheric; 4) underwater.

Guess why they position a certain "tall structure" on top of the spot of an underground nuclear explosion (2)? Which one creates certain "waves" around itself?

This was a classic diagram of the '70s. Those days nuclear explosions were not "evil" yet and they were widely discussed. And it was not a big secret yet those days – that underground nuclear explosions could be successfully used for demolishing skyscrapers...

About author



Mr. Dimitri A. Khalezov, a former Soviet citizen, a former commissioned officer of the so-called “military unit 46179”, otherwise known as “the Special Control Service” of the 12th Chief Directorate of the Defense Ministry of the USSR. The Special Control Service, also known as the Soviet atomic (later “nuclear”) intelligence was a secret military unit responsible for the detection of nuclear explosions (including underground nuclear tests) of various adversaries of the former USSR as well as responsible for controlling the observance of various international treaties related to nuclear testing and to peaceful nuclear explosions. After September the 11th Khalezov undertook some extensive 9/11 research and proved that the Twin Towers of World Trade Center, as well as its building 7, were demolished by three underground thermo-nuclear explosions – which earned the very name “ground zero” to the demolition site. Moreover, he testifies that he knew about the built-in “emergency nuclear demolitions schema” of the Twin Towers as long ago as the ‘80s – while being a serviceman in the Soviet Special Control Service.

PLEASE, READ:

Dear Ladies and Gentlemen,

It was not easy at all – to produce this research and to create the corresponding video presentation. Besides taking several years to collect evidence, it also took several years of fighting with various secret services who opposed this work in one way or another. None of it was at all cheap...

In addition to all of that, it requires considerable expense to distribute these materials today and to translate them to various languages.

As a result of our efforts, you got to know, at last, the truth about the most complicated and the most incredible event of the 21st century – 9/11. It is unlikely that anything else could be compared with the importance of this knowledge you have received free of charge.

However, it was free of charge for you, but not for me. I still have to pay from my pocket to bring this

information to you.

If you want to express your gratitude or support my efforts, or both, please, consider donating. Funds are badly needed to keep things moving. When you donate to us you can be sure that you support the very Truth.

You can find details on how to donate on our web sites mentioned at the end of this article [please, note that access to some of our web sites may be blocked by police depending on your country and so they might be accessible from certain countries only via a proxy].

Or you can transfer money (in any currency) directly to this bank account in Bangkok, Thailand:

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BIC code: not used by banks in Thailand (if really necessary, it could be substituted for by the SWIFT code)

ROUTING NO/ CHIPS UD: **007895**

Branch: **Yannawa branch**

ADDRESS: Krung Thai Bank Public Company Limited, Yannawa branch,
1674/3 Charoen Krung Road, Yannawa, Sathon, Bangkok, 10120, Thailand.
Telephone +66(0)2211-0156, +66(0)2211-0-2211-3300

Beneficiary's Name: **MR. DMITRI KHALEZOV**
DIMITRI

[Please, make sure to note that in this case the first name spells not "Dimitri", but "Dmitri" without the second "i", and that the middle-name is not used.]

Beneficiary's Account No: **010-0-47535-3**

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Should the abovementioned account become closed by authorities, you would be duly notified of such a sad fact and you could always find updated information in regard to another bank account that could be used for donations on www.911thology.com or www.911thology.co web sites, or you can contact me personally for that reason.

For those who do not trust online donations and prefer to send a check here is the postal address:]

Mr. Dmitri Khalezov *[note that "Dmitri" is without "i" in between "d" and "m"]*

P.O. Box 36
Yannawa
Bangkok
Thailand 10120

Alternatively, the donations could be sent via the “Western Union” service directly to:

Mr. Dmitri Khalezov, Bangkok, Thailand.

[Please, make sure to note that in this case the first name spells not “Dimitri”, but “Dmitri” without “i” in between “d” and “m”, and that the middle-name is not used; note also that the name and surname can not be switched, otherwise the Western Union will reject such a transaction.]

If the Western Union for some reason demands my street address, here it is:

Dmitri Khalezov, 333, Soi 40, Phahonyothin Rd, Senanikom, Chatuechak, Bangkok 10900, Thailand.

(please, do not send me letters there, because they are likely to be lost; send them, instead, to my P.O. Box 36 mentioned above).

If the Western-Union was used, please, make sure to send an SMS with the following details regarding the Western Union transfer:

-MTCN (Money Transfer Control Number);

-the name of the sender (the FULL name);

-the country the money was sent from;

-currency type;

-the amount transferred;

- to this mobile phone number in Bangkok: **+66812492233**,

and, please, repeat the same information once again to this e-mail address:

donate@911thology.com

If you use Bitcoin, here is my wallet: **1L4VE5ED5k1RS56i9wg4QDE3ehurHFNz3F**

Alternatively, donations could be sent via “WebMoney” (<http://www.webmoney.ru/eng/>) system into either of these Web Money “purses” that belong to Dimitri Khalezov:

Z285632610819 (US dollars)

E159784303016 (Euros)

R384502243216 (Russian rubles)

U327130392143 (Ukrainian hryvnias)

(Please, do not use any "confirmation/authorization" option (or "protection code") if you wish to donate money via the WebMoney system and, please, do not specify such a transfer as "donation", but merely as a "payment for the book" or a "payment for the video".)

You could contact me if you have some other ideas regarding support or offers of cooperation too.

My telephones in Bangkok, Thailand:

+6681-2492233 and +6681-4403337

081-2492233 081-4403337

Convenient time for contacting via telephone: 8 AM – 9 PM Bangkok time (+7 GMT).

Please, note that mobile phones +6685-1230760 and +6681-1333644 formerly shown on my web site as contact telephones are still functioning, but now they are reserved for strictly personal use.

My other contact details can be found here:

www.dkhalezov.com or here: www.911thology.com or here: www.911thology.co

Besides donating, some volunteers are needed who could help to copy and redistribute the truth about 9/11, as well as volunteers who could help to translate these materials into foreign languages, primarily Persian, Arabic, Turkish, but also French, Spanish, Japanese and Chinese. Translating it to other languages could be beneficial as well. **However, please, contact me before starting any particular translation to verify if it is still needed, because translations of certain materials into certain languages might exist.**

Should you desire to contribute any funds or any personal efforts to either distribution or translation of these materials, please, contact me. Contact details could be always found on

www.dkhalezov.com or www.911thology.com or www.911thology.co

[please, note that an access to some web sites could be blocked by police in your country and so they might be accessible from certain countries only via a proxy].

In sensitive cases, an encrypted way of communication using CipherWall Network is preferred. Please, see www.dkhalezov.com (contacts page) for more details on how to use this program.

Thank you in advance for donating.

I will be grateful as well if you help us to redistribute these materials. Make copies and send them to others. Upload them to the Internet and burn them to DVDs. Send them to your Senators, send them to the Ground Zero responders, send them to those who rent offices around Ground Zero and to those who rent offices in the Sears Tower, send them to your friends, send them to your relatives, and send them just to everyone. Urge others to do the same thing and to send it to more people. People must know the Truth. When every US citizen will know what really happened with the WTC, the US Government will have no choice than to admit the Truth, at last, and to punish those, who were really guilty of 9/11. Perhaps, you will even have a chance to demand back some of your former civil liberties that were taken from you as a result of 9/11 and the war against so-called "terror"...

Send these materials to more people and you will see more public response of the same kind:

**Endnotes:**

[1] Lombardie, Kristen: "Death by Dust" on VillageVoice.com:
<http://www.villagevoice.com/news/0648,lombardi,75156,2.html>

² Ibid, S5.

³ Full story about Mr. John Walcott who underwent bone marrow transplantation here: http://www.nypost.com/seven/12172007/news/regionalnews/9_11_hero_meets_his_cell_mate_11157.htm
 or <http://nypost.com/2007/12/17/911-hero-meets-his-cell-mate/>

yet another shocking story here: <http://abcnews.go.com/US/Story?id=2408066&page=1>

⁴ Rodrick, Steven: "Rudy Tuesday" from NYmag.com 25.02.07: <http://nymag.com/news/features/28517/>

Further links:

Latest information (including information of the latest published materials, the Author's contact information and information concerning donations)

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<http://www.911thology-thai.com>

Download videos and other files: <http://911-truth.net>

YouTube Channel: <http://www.youtube.com/user/DimitriKhalezov>

I would like to inform you about another scandalous article of mine – this time dealing with the so-called "bio-terrorism", namely with infamous "Anthrax letters" that were sent in the immediate aftermath of 9/11 by the supposed "Muslim terrorists". It could be downloaded from here:

http://www.911-truth.net/911_Anthrax_Attacks_Dimitri_Khalezov_English.doc
http://www.911-truth.net/911_Anthrax_Attacks_Dimitri_Khalezov_English.pdf

I am also glad to inform everyone that the full edition of my book is now available in English. Download links could be found on this web site:
<http://www.911thology.com>

English, German, Spanish, Portuguese, Russian, Thai, Italian, Chinese, Turkish, Arabic, Dutch, Polish, Swedish, etc. versions of this article in MS Word and PDF formats could be from this web site

<http://www.911-truth.net/>

(some translations might not be ready yet; while additional zip-archives with pictures used could be found on the same web site):

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[1] The entire story from which I am quoting is here: <http://www.villagevoice.com/news/0648,lombardi,75156,2.html>

[2] Ibid., S.5

[3] The full story about Mr. John Walcott who underwent a bone marrow transplantation was published here: http://www.nypost.com/seven/12172007/news/regionalnews/9_11_hero_meets_his_cell_mate_11157.htm or here: <http://nypost.com/2007/12/17/911-hero-meets-his-cell-mate/> and an even more shocking story was published here: <http://abcnews.go.com/US/Story?id=2408066&page=1>

[4] <http://nymag.com/news/features/28517/>